

DR. CRAWFORD W. LONG

THE DISTINGUISHED
PHYSICIAN-PHARMACIST



By JOS, JACOBS, Phar. D.

Old Hickory

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SOME
PERSONAL RECOLLECTIONS
AND
PRIVATE CORRESPONDENCE
OF
DR. CRAWFORD WILLIAMSON LONG
DISCOVERER OF ANÆSTHESIA
WITH SULPHURIC ETHER
TOGETHER WITH
DOCUMENTARY PROOFS OF HIS PRIORITY IN THIS
WONDERFUL DISCOVERY

BY JOS. JACOBS, PHAR. D.

ATLANTA, GA.

1919



DR. CRAWFORD WILLIAMSON LONG
From a portrait in 1877, about a year before his death

MY PERSONAL RECOLLECTIONS OF DR. CRAWFORD W. LONG

By JOS. JACOBS, Phar. D.

Atlanta, Georgia

On his removal from Jefferson, Ga., to Athens, Ga., in the year 1851, Dr. Long, in association with his brother, Dr. H. R. J. Long, and Dr. Hal C. Billups, soon after, became owners of the old drug store in Athens that had been established by Drs. Reese and Ware, situated on Broad street opposite the midway entrance to the university campus.

It was in this old store that I enjoyed the honor, in my boyhood, of having this great man as my tutor and mentor, while I worked as his apprentice in the pharmacy of Longs & Billups, with the privileges of the laboratories of the chemical department of the University of Georgia, where most of my duties and studies were under the direction of Professor Harry C. White, the present beloved and honored head of the department of chemistry. The gratitude I feel for the guidance and friendly kindness of this distinguished physician and pharmacist during these years, now animates and prompts me to attempt to set down some facts in his life, learned through such association and from data furnished me by his daughters, who have shown their friendship for me during all the years elapsed since my boyhood, and whose devotion to their father's fame has brightened and intensified as time deepened the channels of memory.

From family records I learn that Crawford W. Long, the discoverer of surgical anaesthesia, was of Irish descent, through ancestors who first acquired their American citizenship by settlement in Pennsylvania and Virginia. And his life exhibited every phase and degree of liberality, chivalry and benevolence oftentimes claimed for those of such extraction.

Both of Dr. Long's grandfathers were soldiers in the Revolutionary War. Edward Ware, his mother's father (1760-1836), and Samuel Long (1781-1853), his paternal grandfather, both emigrated to Madison county, Georgia, and there died, after long lives of usefulness and good citizenship, and their graves have been marked by the U. S. Government as soldiers of the Revolution, at the instance of the Daughters of the Revolution, upon proofs of their honorable records furnished from the Archives at Washington, D. C.

Crawford Williamson Long, the discoverer, son of James Long and Elizabeth Ware Long, was here born November 1, 1815, at Danielsville, in the house inherited from his grandfather, Samuel Long, who had built the same on his removal from Carlisle, Penn., in 1792. His mother was Elizabeth Ware, whose parents, Edward Ware and Sarah Thurmond, had come to Georgia soon after the peace treaty ending our Revolutionary War, from Albermarle county, Va.

On August 11, 1842, Dr. Long married Caroline Swain. His death occurred at Athens, Ga., June 16, 1878, where he then resided. He had been called to the bedside of a lady in childbirth, and fell unconscious while rendering her medical assistance, and survived but a few hours in the guest chamber of his patient's home. His last words were inquiries about her condition and directions for her welfare.

Some Eearly Recollections.

My boyhood recollections of Dr. Long picture him as a mature and dignified man of middle age, then engaged in general medical and surgical practice in the historic Georgia town of Athens (now a flourishing city), the seat of the first university in the United States that was recognized and supported by a State of the Union. His office was in the rear of the drug store owned and operated by himself and his younger brother, Dr. H. R. J. Long (himself a practicing physician), and by their other partner, Dr. Hal C. Billups. This was in 1875, a few years after the War Between the States, and during the period of "Reconstruction"

He was above medium height and wore conventional black. He was quiet and unassuming in deportment and address, gentle and gracious in manner with all with whom he conversed, but with ever a retiring and modest mien. He was exacting and particular in business dealings for just and honorable results, and required order, cleanliness and system in all the appointments of the store and office. His kindly disposition and quiet good humor attracted many friends to visit and exchange pleasantries when duty allowed a short respite for social exchanges with his friends, who were the leading citizens and business men.

Having graduated in his academic studies at old Franklin College of Athens, he was always in touch with the affairs of the Alumni Association of the University and always enjoyed the spirit of celebration that pervaded the season at each annual recurrence of "Commencement".

I remember that amid the many and exacting duties of a large general practice, which it was ever his first and earnest care to fulfil, he yet found time to write, occasionally, a humorous sketch for the newspaper then published in Athens, *The Watchman*, edited by John H. Christy. These articles were contributed under the nom de plume of "Billy Muckle," and generally portrayed the "sonsie tricks, the failings and mischances" of some local celebrity, but the identity of the person always veiled by a fictitious name and localities changed, so as to avoid offense. Yet these occurrences and characters were recognized by the doctor's more intimate friends, and he would have to "acknowledge the corn" when they would circle around him and claim discovery of the "target". It was a great pleasure to him, after some laborious season, or "toss wind o' trouble," to collect some of these friends for "rubbers" of whist.

But it was in the family circle, on winter's evenings, that, perhaps, his chief delight found expression, where, in the presence of his adored wife and his sons and daughters, then a "beauteous seraph sister-band," with also, perchance, a few of their neighbor friends, was read some book selected from the classics or standard English literature. I am assured by all his daughters now living at Athens that at the period of his prime of manhood such fireside evenings, whenever an active medical practice would permit, continued during all the years of their girlhood spent at home, and that their father made for them a varied course of belle lettres, leading them from Homer, to the latest approved productions of the press. They have told me that his father had a wonderful collection of old books, so he was reared in a literary atmosphere. He never tired of Shakespeare's plays and frequently quoted from them. In looking over the book in which he recorded his daily visits, under the name of one of his patients was written: "Richard III—First scene," when Richard woke from his dream, tormented by his conscience. He was the safe repository of a great many secrets. In another place is a quotation from Tennyson. He was fond of Burns, Byron, Coleridge, Shelley and Keats as poets; Macaulay as an historian; Scott, Dickens and Thackeray as novelists, and also Wilkie Collins, whose *Moonstone* enthralled him until he solved the mystery of its disappearance. The impressions made by any one upon his intimates give, perhaps, the best portraiture, and I here record the description furnished me by his daughter, Mrs. Francis Long Taylor, now of Athens:

Personal Characteristics

"He was six feet in height, rather slender, when a young man, but in middle life weighed from one hundred and sixty to one hundred and seventy pounds. He was finely proportioned, with broad shoulders, but with small feet and hands, with very thin and tender skin. His forehead was high, broad and full; eyes very blue, well developed nose, somewhat aquiline. Very dignified in manner, his whole appearance betokened the gentleman. He maintained a slight reserve, except among intimates and congenial people, or with the sick, absolutely free from all duplicity, never thrusting his opinions upon people, but when expressing them, was frank and fearless. He scorned boastfulness, pretension or any manner of deceit. Cheerful in the sick room, he always inspired his patients with confidence. His perfect self control, kindness and fine judgment gave him great influence and he was appealed to in many cases to arbitrate.

"Dr. Long dressed well; he generally wore what was called a frock coat. A very dark dahlia was his favorite color; also black and dark gray. His suits, generally, were made to order by the best tailors, generally of broadcloth. He was particular in all his personal habits. I never knew him to go to a meal without first washing his hands.

"He was a very fine whist player, playing, generally, at home with a few friends or his family. He often engaged in a game of draughts with his wife. He was fond of hunting and fishing, and was a wonderful shot with the rifle and pistol. He was fond of good horses and enjoyed, without betting, the races at the county fairs. His wife's carriage horses were from Kentucky. His children were given ponies as soon as they were old enough to ride. He was a good business man, but his heavy practice forced him to leave his drug store in the hands of others much of the time; likewise his two plantations. He had for that day, very advanced ideas in agriculture.

"As a young man he was fond of dancing, and all of his life, of the theatre and opera, demanding the best acting and music, although he enjoyed a good minstrel show. He had a correct eye for form and taste in colors. Whenever he made a business trip to New York he returned with handsome gifts and expensive silks for his wife and sisters, and was a very close observer of ladies' dress. His children were trained never to wear imitation jewels or laces. He hated shams of every kind.

"Dr. Long and Alexander H. Stephens were lifelong friends. In the last public speech ever delivered by Mr. Stephens, made in Savannah, Ga., a few weeks before his death, he insisted that Georgia should place the statues of Crawford W. Long and James Oglethorpe in Statuary Hall, Washington. Since then the Georgia legislature passed a bill that Mr. Stephen's name should be substituted for that of Oglethorpe.

"Dr. Long often visited Henry Clay when a student at Lexington, Ky.

"His was the old-fashioned Southern hospitality. Guests would frequently spend days, weeks, even months with the family, making a gay household. Sometimes there were formal entertainments. Nothing gave him so much pleasure as the happiness of his family.

"I know of no eccentricities he possessed. He was a singularly well rounded character. He was sensitive, refined, and considerate of others; free from envy, malice and all uncharitableness, with quick, high temper, but under control."

A Wife's Loving Tribute

I have been permitted to read some of the descriptive and reminiscent writings of Dr. Long's wife; notably a sketch of their home and married life in Jefferson, Ga., during the period before the War Between the States, and an account of a summer outing spent in the mountains of North Carolina, the "Land of the Sky," and they display, besides a most charming native sensibility, a literary finish doubtless acquired at the family gatherings. Perhaps no more touching tribute to the virtues of

this great man could be presented, than to offer the glimpses of his home life as depicted by his wife in the following lines, taken from her journal, written in 1886, eight years after his decease. The scenes are laid about the time of the great discovery:

"We had prospered in this world's goods, had a lovely home, and sweet, pleasant children, two sons and three daughters. My husband was the leading physician, fine looking, a devoted husband and father, a kind, judicious master, beloved and respected by all classes. Our home was a paradise where our 'olive plants' thrived apace. A large and lucrative practice enabled us to live handsomely, without entrenching on other sources of revenue. Our olive plants became more numerous, but it mattered not—we had a welcome for all. They made us very happy.

"About sundown when 'papa' usually returned, we were out on the veranda watching for him. A shout went up, when he appeared—then such racing to meet him. Of course he waited patiently for all to climb in the buggy, with two or three clinging on the outside. If on horseback,



MRS. MARY CAROLINE LONG

Nee Swain—Wife of Dr. Long. From photo at 61 years of age.

he strung as many on Charlie in a row as could be safely put astride, while those less favored, trotted in as near to him as possible. Then comes the time for a kiss for 'little wife,' and then he grasps the baby, tosses it in the air, crowing and reaching out its little arms—and papa dearly loves babies.

"Yes, we had an earthly paradise—that of perfect love and harmony. Never did a palatial home contain a happier couple than ours beneath the locust trees whose fragrant flowers hung pendant above the shady green lawn, the latticed porch a bower of beauty, covered with pink multiflora

roses, flowers on the window sills, humming birds darting out and in the open windows, where I so often sat with a book or some light sewing, watching for a 'solitary horseman'. For his dear presence, loving words, fun and frolic, I lived.

"The laborious life of a village doctor, with an extensive practice in the adjoining country and villages and towns, without railroads is hard to conceive now. To reach his patients, swollen streams had to be crossed at the fords amid dangers, winter's cold and summer's heat disregarded, with loss of sleep and exhaustion the consequence.

"Just at this time the striving village doctor was on the eve of a great discovery, successful anaesthesia in surgery. It occupied his mind so much that he took time to write for publication in 1849 his experiments in the use of sulphuric ether in surgery. He used this method whenever he could induce his patients to submit to the 'dangerous drug'. The effort to establish his claims as such discoverer has finally succeeded, and I rejoice that his declining years were gladdened by deserved recognition. It was very sweet to this toiling man, this long delayed and hotly contested honor; but this honor was less to his tender heart than the fact that he had bequeathed to the world a remedy or palliation as a means of preventing human suffering.

"But returning to my pleasant window, I yet see him dressed in a light blue summer suit, collar and cuffs black, tan colored silk gloves, wide brimmed white hat, sitting superbly on his dapple-grey charger, firm, dignified—he rides like one to command.

"During these earlier years of his practice the doctor was growing mentally in his chosen profession. His practice, already large, was extending; his fame as a surgeon acknowledged by the most eminent practitioners of that day; they often sending for him long distances to assist in difficult operations. His hands were remarkably supple and shapely in appearance, their extreme sensibility to touch being of great advantage in certain kinds of practice. His ideals were noble and lofty, causing aspirations to make the most of himself for the good of mankind. For this he loved, labored, suffered and died."



Dr. Long's home in Athens, Ga., where he resided for many years, and where he lived at the time of his death.

In the year 1850 Dr. Long moved to Atlanta, Ga., this then being a small town some 75 miles distant from Jefferson and the terminus of the Western and Atlantic, or Georgia's state owned railroad, running from Chattanooga to Atlanta. As Atlanta was then but a crude village he removed to Athens, an educational centre since 1787, where he could be near his brother and other relatives, here soon to become one of the leading practitioners of this cultured community, and here he resided until his decease—from 1851 to 1878.

On removing to Athens, Ga., Dr. Long built the home situated on Milledge avenue, which is presented in the illustration, and resided there until his decease.

Dr. Long's Epistolary Style.

As an example of Dr. Long's epistolary style when a young physician and while he was still testing the efficacy of ether in surgery, I give a letter to his younger brother, H. R. J. Long, then attending lectures in New York City. His brother was then twenty-two years of age:

Jefferson, Ga., December 23, 1845.

Dear Brother:

I expect you have decided before this time about taking the dissecting ticket. If you have not, I think it will be best for you to defer it, until attending the next course of lectures.

The dissecting rooms in most medical colleges are kept open from the first of October, and during that month is the best time for dissecting. Then the students can dissect by daylight and when the regular lectures commence they will be through with dissections and have nothing to interrupt their studies. If you have not taken any private lecture tickets, I would advise you not to take any this winter. You are not sufficiently advanced to be profited by them and I have my doubts whether they are of much advantage, even to second course students. The six lectures of the faculty are sufficient for any one to recollect and well digest in the mind in one day.

The examinations by the demonstrator in anatomy and by others are no doubt of advantage to those who expect to apply for graduation.

I have never experienced such a winter before in Georgia. The weather has been very cold since the first of November. On Saturday, 20th of this month, we had another "cold Saturday". Early Monday morning the thermometer was at 8°, and has not been higher than 20° since. The mill pond has been in fine order for skating since Sunday morning and nearly all Jefferson has been on it. Wm. Thurmond tried the strength of the ice Sunday morning and received a cold bath to his sorrow, but the ice soon became too thick to treat the others in so discourteous a manner.

You have no doubt heard the story of "Handy Andy" and recollect his asking Dick Dawson whether he was an "uncle" or "aunt". I must inform you in the language of "Andy" that you are an "aunt," and that your niece, a week old, tomorrow, is doing very well.

You must excuse my nonsense.

(Signed) C. W. Long.

I copy one other family letter of Dr. Long in this sketch, both because it displays the solicitude which good masters felt for the welfare of their negroes during the period before the war when our Federal Constitution allowed property in negroes, as a condition of servitude, in our Southern States, and because of its tenderness:

New York, April 26, 1854.

Mrs. C. W. Long—

Dear Caroline: You can scarcely realize how anxious I have been for several days to hear from you. I feared something was wrong, which prevented you from writing. Your letter of the 16th was not received until this morning, and how sad it makes me feel that you have been

sick, and had such trials and troubles. How much I wish I could be with you to comfort and cheer you, if still sick, and as well to lighten your other trials.

How sorry I am to hear of poor Melvina's sickness and derangement. Mr. Terry arrived here yesterday morning and told me there was something the matter with a negro girl of mine. I supposed it was another attack of jaundice, but did not think it would last long. This made me uneasy, but I felt much worse when I learned from your letter what a desperate condition Melvina is in. How dreadful it would be for her to become a confirmed maniac. I do hope she will recover both from her mental and bodily disease. Restless and uneasy as I am, yours must be a severer trial than mine—you sick, our dear children sick and then the other trials added. I do hope that the good and great God who has been so kind and gracious hitherto will preserve and protect you in all your trials and afflictions and make these trials a blessing to us. They are sent for some wise and good purpose. May we see their intent and profit by them.

I hope very much that Melvina's mental affliction is produced by some disease of the body, which can be relieved and that I may find her recovered when I once more reach our humble, but to me sweet home and once more clasp in my arms your dear form and receive the embraces of our sweet children. Home never felt so sweet to me before, nor did I ever realize before how dear were those loved ones, who, I trust, are now well and happy in that little home.

I shall hurry through my business as quickly as possible and, if God preserves and protects us all, we will soon meet again, and once more be happy in each other's society.

I have never enjoyed a trip less than the present, and although I wrote as cheerfully as possible from Columbia, I had sad forebodings which I would not express. I trust that the cause of my forebodings has passed away.

Jones wrote me on the 18th, but said nothing in regard to your health and Melvina's condition.

Yesterday morning I went to Trinity Church and heard a good sermon. In the afternoon some company came around to the hotel and invited us to walk out and see the city. We spent about three hours walking; visited the mission house and then Five Points, and saw the efforts to reform that "sink of iniquity". They pronounce that part of the city reformed, but it is now the most wretched looking place I ever saw. The missionary effort is greatly blest and with perseverance they will reform that part of the city.

I have not time to write more, but will give you an account of the sights when I once more enjoy the pleasure of being with the dearest and best of wives.

Your husband,

(Signed) C. W. Long.

(Note: Melvina was a slave domestic.)

Estimation of Physicians

As exhibiting the estimation in which he was held by contemporary brother physicians, I insert the following letter:

Jefferson, Jackson Co., Ga., April 3, 1858.

To Prof. G. W. L. Bickley of Southern Medical College, Atlanta—

Dear Sir: I wrote you a letter some time since stating that Dr. R. M. Smith, of Athens, would be a very suitable man to fill one of the adjunct professorships. I have twice mentioned the names of two brothers, Drs. C. W. and H. R. J. Long. Both these men are of unexceptionable character and of the highest order of talent. I am well acquainted with both of them, but have said very little to either in regard to the anticipated university. I mentioned it to Dr. Crawford W. Long and asked him what he thought of such a thing. He seemed to be pleased with the idea of a Southern University of high order and to think that one based on proper principles would do well. I felt a delicacy in asking him to take an inter-

est from two considerations: 1st, because he had not seen the principles nor peculiarities of the institution, and, 2nd, because I did not know whether you had the entire list of professorships filled. For these reasons I did not ask him whether he would like a professorship, if offered.

I can say that you could not select a name more suitable from New Orleans to New York. He is a man in every way fitted to fill a professorship in a Southern college. In the first place he is a Southern man, by birth and in feeling. He is a man of extensive capital. He is a man, again, of profound erudition and of mature medical knowledge, a man of the most amiable deportment, of high feeling and noble bearing, a man whom everybody, professional and non-professional, esteems. He is a very eminent practitioner and a surgeon of as high repute as any of his age in the South; he has been unusually successful—in fact, I have never known him to fail of success in a single operation. I would rather associate with him in an enterprise than any man in the South, from the fact that he is a whole-souled, open hearted and unassuming man—like Washington—content with deserving a crown.

Dr. Long is a man of great energy and point of character, but yet one of the most even tempered, pleasant, and gentlemanly men I have ever had dealings with. His opinion is sought far and near by the profession from the fact that the people are satisfied with any physician, if he but procure Dr. Long's opinion. He is a profound medical philosopher, and has no hobbies, but is always abreast of the improvements in all departments of the profession. He is one of the best pathologists in the South.

He is the discoverer of anaesthesia and is the first man who ever amputated a limb or excised a tumor (the patient being under the influence of ether), without inflicting pain upon the patient.

I hope you will not make further selection until you can confer with Dr. C. W. Long, and I am certain that he can attract as many students to the university as any man you could get. Dr. Long is in the vigor of manhood. He has done a very extensive practice at three points in Georgia, viz: Jefferson, Atlanta and Athens. He has gone over a very extensive field of investigation and observation, and is not less distinguished in one department than in another, but stands unrivalled in each department of his profession.

I am ever yours, etc.,

I. J. M. Goss, M. D.

Georgia Medical Society

Dr. Crawford W. Long was a "charter member" of the Georgia Medical Association, which, according to "History of Medicine and Surgery in Georgia," by Luther B. Grandy, M. D., had its origin in a meeting of physicians in Macon, Ga., March 20, 1849. The meeting was called by the "Medical College of Georgia" and the local societies of Savannah and Macon. About eighty delegates were present. Dr. Lewis D. Ford, Augusta, was elected President, and Dr. Chas. T. Quintard, Macon, Secretary. At this meeting Dr. Long was present and became a member.

The first "publication" by Dr. Long of his discoveries as to ether in 1842, 1843, 1844, 1845 and 1846, in print, was a contribution to THE SOUTHERN MEDICAL AND SURGICAL JOURNAL, December, 1849, giving a full account of his use of ether in surgery up to that time.

Claimants for the honor, who had not used ether until 1846, and who were beseeing Congress for pay for their alleged "discoveries," were so persistent, that the friends of Dr. Long urged him to read a paper before the Georgia Medical Association on the subject and the following is a transcript of that paper, taken from "Transactions of the Georgia Medical and Surgical Association, June, 1853"

PAPER READ BY DR. C. W. LONG BEFORE THE GEORGIA MEDICAL AND SURGICAL ASSOCIATION, 1852

"In THE SOUTHERN MEDICAL AND SURGICAL JOURNAL for December, 1849, I presented an account of what I considered the first use of ether by inhalation as an anaesthetic agent in surgical operations; a summary of which I will proceed to read to the State Medical Society.

"Previous to stating the first operation performed by me with ether, I will briefly give the reasons which induced me to make experiments in etherization.

"In the month of December, 1841, or January, 1842, the subject of the inhalation of nitrous oxide gas was introduced in a company of young men assembled at night, in the village of Jefferson, Ga., and the party requested me to prepare them some. I informed them that I had not the requisite apparatus for preparing or using the gas, but that I had an article (sulphuric ether), which would produce equally exhilarating effects and was as safe. The company was anxious to witness its effects; the ether was produced, and all present, in turn, inhaled. They were so much pleased with its effects that they afterwards frequently used it and induced others to use it, and the practice became quite fashionable in the



Dr. Long's Office in Jefferson, Ga., where the first operation with Sulphuric Ether was performed, March 3, 1812, upon James M. Venable.

county and some of the contiguous counties. On numerous occasions I inhaled the ether for its exhilarating properties and would frequently at some short time subsequently discover bruises or painful spots on my person which I had no recollection of causing, and which I felt satisfied were received while under the influence of ether. I noticed my friends while etherized, receive falls and blows, which I believed sufficient to cause pain on a person not in a state of anaesthesia, and, on questioning them they uniformly assured me that they did not feel the least pain from these accidents.

"Observing these facts I was led to believe that anaesthesia was pro-

duced by the inhalation of ether and that its use would be applicable in surgical operations.

First Operation With Ether

"The first person to whom I administered ether in a surgical operation was Mr. James M. Venable, who then resided within two miles of Jefferson, and at the present time in Cobb county, Ga. Mr. Venable consulted me on several occasions as to the propriety of removing two small tumors on the back part of his neck, but would postpone from time to time having the operation performed from dread of pain. At length I mentioned to him the fact of my receiving bruises while under the influence of the vapor of ether, without suffering, and, as I knew him to be fond of and accustomed to inhale ether, I suggested to him the probability that the operation might be performed without pain, and suggested to him operating while he was under its influence. He consented to have one tumor removed and the operation was performed the same evening. The ether was given to Mr. Venable on a towel and when fully under its influence, I extirpated the tumor. It was encysted and about one-half an inch in diameter. The patient continued to inhale ether during the time of the operation, and seemed incredulous until the tumor was shown to him. He gave no evidence of pain during the operation, and assured me after it was over that he did not experience the least degree of pain from its performance.

"The second operation I performed on a patient etherized was on the 6th of June, 1842, and was on the same person, for the removal of the other small tumor. This operation required more time than the first from the cyst of the tumor having formed adhesions to the adjoining parts. The patient was insensible to pain during the operation until the last attachment of the cyst of the tumor was separated, when he exhibited signs of slight suffering—but, asserted, after the operation was over, that the sensation of pain was so slight as scarcely to be perceived. In this operation the inhalation of ether ceased before the first incision was made. Since that time I have invariably desired patients, when practicable, to continue the inhalation during the time of the operation.

"*Having permitted such a time to elapse without making public [the author states that these operations were made known to physicians and the people all about Jefferson and Athens at the time they occurred] my experiments in etherization, in order to show the correctness of my statements, I procured the certificate of the patient on whom the first operation was performed—the certificates of two who were present at the time of the operation, and also of his mother, brothers and sisters and a number of his immediate friends who heard him speak of the operations soon after they were performed.
(*1842 to 1849)

"THE SOUTHERN MEDICAL AND SURGICAL JOURNAL of 1849, December, contained but two of the certificates. I have a number of others which may be seen or read, if desired by the society.

"My third case was a negro boy who had a disease of the toe which rendered amputation necessary, and the operation was performed July 3, 1842, without the boy evincing the slightest degree of pain.

"These were all the surgical operations performed by me in the year 1842 upon patients etherized, no other cases occurring in which I believed the inhalation of ether applicable. Since 1842, I have performed one or more operations, annually, on patients in a state of etherization. I procured some certificates in regard to these operations, but not with the same particularity as in regard to the first operations, my sole object being to establish my claim to priority of discovery of the power of ether to produce anaesthesia. However, these certificates can be examined.

"The reasons which influenced me in not publishing earlier: I was anxious before making my publication to try etherization in a sufficient number of cases to fully satisfy my mind that anaesthesia was produced

by the ether and was not the effect of the imagination, or owing to any peculiar insusceptibility to pain in the persons experimented on.

Mesmerism Was Suggested

"At the time I was experimenting with ether, there were physicians 'high in authority' who were the advocates of 'mesmerism,' and recommended the induction of the mesmeric state as adequate to prevent pain in surgical operations. Notwithstanding thus sanctioned, I was an unbeliever in the 'science' and was of the opinion that if the 'mesmeric state' could be produced, at all, it was only on those of 'strong imagination and weak minds,' and was to be ascribed solely to the working of the patient's imagination. Entertaining this opinion I was the more particular in my experiments in etherization.

"Surgical operations are not of frequent occurrence in a country practice, and especially in the practice of a young physician; yet I was fortunate enough to meet with two cases in which I could satisfactorily test the anaesthetic powers of ether. From one of these patients I removed three tumors the same day; the inhalation of ether was used only in the second operation and was effectual in preventing pain, while the patient suffered severely from the extirpation of the other two tumors.

"In another case I amputated two fingers of a negro boy; the boy being etherized during the operation as to one finger and not during the other—he suffered from the latter operation and was insensible during the other. After fully satisfying myself of the power of ether to produce anaesthesia, I was desirous of administering it in a severer surgical operation than any I had performed. In my practice prior to the published account of the use of ether as an anaesthetic I had no opportunity of experimenting with it in a capital operation, my cases being confined, with one exception, to excising small tumors and the amputation of fingers and toes. While cautiously experimenting with ether as cases occurred, with the view of testing its anaesthetic powers, and its applicability to severe as well as minor surgical operations, others, more favorably situated, engaged in similar experiments, and consequently the publication of etherization did not 'bide my time'. I know that I deferred the publication too long to receive any honor from the priority of the discovery, but having by the persuasion of friends presented my claims before the profession, I prefer that its correctness be fully investigated before the medical society. Should the society say that the claim, though well founded, is forfeited by not being presented earlier, I will cheerfully respond: 'So mote it be.'

"Not wishing to intrude upon the time of the society, I have made this short compendium of all the material points stated in my article in the Journal; and if the society wishes any further information on the subject I will cheerfully comply with their wishes.

(Signed) "C. W. Long, M. D."

The above paper was read before the Georgia Medical Society at its April meeting, 1852 (see Transactions, pp. 113, 114, 115, 116 and 117), which unanimously passed the following Resolution:

"Resolved, That this society is of the opinion that Dr. Crawford W. Long was the first person who used sulphuric ether as an anaesthetic in operations, and as an act of justice to him individually and to the honor of the profession of our own state, we most earnestly recommend him to present at once his claims to priority in the use of this most important agent to the consideration of the American Medical Association at its next meeting.

"Dr. Dickinson,

"Dr. Cooper,

"Dr. S. N. Harris,
Committee."

In April 1853 Dr. Long read a similar paper before the Medical Society of Georgia. Resolutions highly complimentary were introduced and unanimously adopted.

—See Southern Medical and Surgical Journal, June, 1853.

The War Between the States

During the decade preceding the War Between the States, Athens, Ga., being the centre of educational activities in Georgia, was also the place where Southern sentiment found its expression in all the various divisions of political thought then stirring the minds and hearts of the statesmen and people of our Union. Here was the home of Howell Cobb and his brilliant brother, T. R. R. Cobb; and Alexander Hamilton Stephens, and Robert Toombs, both alumni of the university, were trustees of the same and met with the trustees and alumni from all sections of the State at the annual June commencements of the university. Dr. Long had been a classmate, roommate and lifelong friend of Mr. Stephens, and they agreed in politics during all the discussions over national questions, which divided the country after the "Missouri Compromise" and the differences about the "Texas Question" and the Mexican War. As to the "Slavery Question" Dr. Long was a "Whig," and followed the teachings of Henry Clay. While he owned a few negro domestic servants he ever treated them as wards of his care and benevolence, and in his staunch Methodist view thought that the Providence of God had permitted slavery in order to Christianize the African race. He believed with Mr. Clay that such free negroes as wished to settle in Liberia, should be aided in doing so, and that the great body of the slaves should gradually be emancipated under regulations that would be beneficial to them and equitable to their owners under the Constitution of the United States, on the destruction of property rights, honestly acquired. His love for the Union led him ardently to support Mr. Stephens' great and unceasing efforts to stay and prevent the movement for Georgia's "secession," and to seek adjustment of all differences between the sections under the aegis of the folds of "Old Glory". But when events arising after the "Kansas and Nebraska" question showed that secession was inevitable, and upon the adoption of that course by Georgia by Constitutional action, he cast his fortunes with his State and acted with the South in her struggle. When "Brown's Raid" in Virginia and its consequences had inflamed public opinion, leading to events that finally precipitated the attack on Fort Sumter to forestall its reinforcement, which was regarded as an act of war on the Confederacy, he was called upon by the Confederate Government at Montgomery to take charge of a military hospital to be established at Athens, and during the war was so engaged, co-operating with the Richmond Medical Department throughout the war.

A memorial of this service was presented to Dr. Long in the form of a Cross of Honor by the Georgia Division of the Daughters of the Confederacy, Laura Rutherford Chapter, Athens, Ga., No. 1912, with record in their minutes as follows:

"To Crawford W. Long, who rendered very material aid to the Confederate Cause in various ways. Dr. Long was appointed by the Confederate Government as physician at Athens, Ga., for the families of soldiers absent from home fighting for the Confederate Cause, and was relieved from active service for this and to act as surgeon for sick and wounded soldiers at the University Campus Hospital.

(Signed) "Thos. Bailey, White's Reg., 55th Ga. Vols.

"H. R. Palmer, Co. K, Cook's Btn.

"W. G. Carithers, Adj. Camp 478

Cobb-Deloney.

"W. J. Morton, A. D. C."

As a memento of the days succeeding this war, I insert a copy of a letter written by Dr. Long in 1866:

Athens, Ga., Clarke Co., September 14, 1866.

Hon. Wm. H. Seward, Secretary of State—

Sir: I have the honor to acknowledge receipt of the President's Grant of Pardon, bearing date the second day of October, 1865, and hereby

signify my acceptance of the same, with all conditions therein specified.

I am, sir, your obedient servant,

C. W. Long.

The warrant of pardon was received September 10, 1866.

C. W. Long.

Within a few months after the issuance of Dr. Long's pardon he was called upon by Capt. C. F. Trowbridge, 16th Infantry, U. S. Army, and tendered a commission from the Surgeon General to act for the U. S. Government in surgical and medical matters at Athens, and during the period of "Reconstruction" so acted in association with Dr. Blucher, who was stationed at Athens.

Careful in Business

Shortly after this period I was employed in the drug store then owned and operated on Broad street by Longs & Billups, a firm composed of Drs. C. W. and H. R. J. Long and Dr. Hal C. Billups.

While Dr. Long at this period was engaged in active and extensive practice of medicine and surgery, he maintained his office at the drug store, to which he returned at regular hours; and he kept in close touch with the buying and selling affairs of the store, scrutinizing the various stocks of drugs and chemicals and medicinals to see that they were kept in plentiful supply. He gave much care to the purchase of stocks, and he kept in close touch with the improvements in pharmacy, adopting their conveniences and advancements in his practice. In the chemical line he preferred the products of Powers & Weightman of Philadelphia, and in drugs and medicines those of McKesson & Robbins of New York, represented by L. B. Cheatham of Macon, Ga., whose widow is still living at Union Point.

The ether used at the time as an anaesthetic on Venable, was manufactured by Powers & Weightman, and was furnished by the drug store of Reese & Ware of Athens.

For many years there stood in front of the drug store of Longs & Billups a well-known sign, carved out of hickory by Chas. Oliver, a sign painter, who afterwards moved to Atlanta, became a preacher and died here. This sign was in the shape of a negro boy holding a pestle in a mortar, and became known by the sobriquet of "Tom Long". This sign I now have in my office.

Systematic in his own habits, he required promptness, neatness and systematic observances from his employees and clerks, with ever an un-failing kindness of tone and manner, suggesting more the sympathetic teacher than the exacting employer. It was his habit, after an early breakfast, to come first to the store and his office before beginning his usual morning visits to his patients in their homes. He was very fond of smoking cigars, and frequently bought them from George M. Traylor, who was then traveling for his own house. Mr. Traylor is still living in Atlanta. He was fond of his favorite newspaper, The Atlanta Constitution, then, as now, the leading daily in the South, and glanced through all its columns daily, before beginning the business of the morning. In those days that newspaper was represented as a traveling agent, by Col. T. M. Acton, who was a most gifted and lovable character, and I remember that when on his visits to Athens, Dr. Long was fond of having him call at his office, where, if duty permitted him to remain, he would, sometimes, relax, and call forth some of Col. Acton's "queerest stories". Being a man who weighed nearly four hundred pounds, full of vivacity and with many of the gifts of the actor, Col. Acton's songs and stories were rendered in a way to make the "wonder grow" in my young imagination, as I stood and "glowered" or was "sair astonished" at the performance.

During those stirring days of "Reconstruction," while the Southern States were becoming politically and industrially changed in action and policies, necessary to meet the changed conditions in agriculture, commerce and social adjustments, and in which the beginnings of manufacture were made manifest, Dr. Long sedulously devoted himself to all the

active requirements that fell to the physician, surgeon and pharmacist. He bore a good and strong man's part in all the increasing burdens that fell upon the Southern people while rebuilding the destroyed fabric of that old civilization which was so full of charm and vibrant life. His wisdom and poise, his friendly advice and help were an example and constructive force in all movements for the good of his community. He did his full part in all civic endeavor, in his city, county and State that has resulted in the splendid position our Southland now, amid her restored conditions, holds in the progress of the world. Thus he continued to work until failing health, brought on by over-exertion in the performance of his duties, exhausted his powers. And it was consonant with unselfish devotion to duty, that the end of his labors should illustrate the trend of his whole life.

Tribute by Dr. Lipscomb

On June 16, 1878, Dr. Long was summoned to the bedside of a lady patient in Athens, then in her confinement, and it was while ministering to her he was stricken by a fatal illness. Borne to the guest chamber, he rallied sufficiently to inquire about the condition of his patient, give some necessary directions for her welfare, and then passed to his final rest.

I may perhaps in no better way illustrate the degree and character of the estimation in which he was held by the citizenry which knew him best and in all the more intimate contacts of life than to quote liberally from the oration delivered at the Methodist Church in Athens on the occasion of his funeral, by Dr. A. A. Lipscomb, Past Chancellor of the University of Georgia:

"Often when honestly trying to serve others, we arouse their prejudices, and happy are we if we escape their wilful antagonisms. Perversion is a chronic infirmity of many people. Pride and vanity are the common sins of the race and not seldom do they resist your well meant kindness as impertinent. Against these evils God has provided means of help in unconscious goodness.

"Was not our deceased friend, our brother, Dr. C. W. Long, a striking instance of this unconscious influence? Had he not that nature and character which diffuse themselves silently and powerfully through a community and raise it to a higher level of sentiment and action? None of us were unmindful of his rare merits, and yet it was not until death had smote him down, that we fully realized what a large space his virtues and services filled in our midst.

"There was nothing about him of what is called demonstrativeness. On the contrary he was a very quiet man, and quiet, too, because thoughtfulness was the ruling habit of his mind. Though capable of being roused, if circumstances justified a strong impulse, yet he held his forces under the check of a beautiful repose, which is nowhere more needed than when in contact with unrest, anxiety, sickness and sorrow. It was his aim to educate his temperament, as well as his intellectual and moral qualities, for the work of a physician; and one who sets this ideal before him must keep himself aloof from the noisy excitements of the day. No doubt this hindered him from quick access to the paths of prosperity, and delayed that prompt appreciation of his merits by others, which is dearer to most men of talent than success; yet every step of such a man is a step toward the heights of acknowledged excellence. Modesty may veil his worth, but cannot conceal it; the hour is sure to come, when the living man, like the finished statue of a great sculptor, will be unveiled before the public gaze, and then it is seen that the patience of self-possession and the absence of all haste in asking recognition are the truest basis of reputation. One of the lessons of Dr. Long's life is that worth will make its way to the admiration and reverence of mankind. Postponed it may be, but when the honor is attained, it never fails to repay the tardiness of time and compensate the lagging march of circumstance.

"For nearly forty years he practiced medicine, with what skill, with what constancy of interest and sustained force of sympathy, with what

calm enthusiasm of devotion, I need not tell you, whose homes this day are in mourning over a bereavement which is personal no less than professional to so many citizens of Athens and its vicinity. Personal and professional, I repeat, for the man and the physician were united with singular closeness in his character and career. The intellectual severity, the truthful emotions, the painstaking that cautiously wrought out its conclusions, the resolute patience which kept his judgment suspended till all the facts were acquired and analyzed, the tolerance he had for doubt, as long as doubt was a virtue of thought, the prompt and courageous vigor with which he acted when his mind was made up, the composure which surrounded him, and which was a finer atmosphere than that of breathing, in which he lived and moved and had his being, the watchful solicitude that was anxiety of heart, the beneficence so responsive to the calls of the poor, and the deep tenderness toward womanhood in the sorrows of her life so conspicuous in his whole history; these were qualities both personal and professional to the man, and they diffused themselves like a subtle aroma about his presence.

"No one can value his profession, who does not value his manhood. Dr. Long regarded his profession as a channel through which his inner and outer life might flow in blessing to the world, and in that channel it did flow, a stream tranquil but strong, and widening as it went onward, a water from the fount of old Bethesda that bore healing to so many. Dr. Long looked on his profession as a providential vocation. To him it was not a work of mere humanity: it was this, because it was more than this, and he accepted its tasks as a divine ordination, for which he was set apart by the touch of a Hand unseen.

The Benefactor of Mankind

"Occasionally his profound sensibility on the subject would break through his reserve, and then, words touching his supreme concern would drop from the conscience of his soul. What those words were, his confidential friends knew. But all know that no man can do such work as Dr. Long did, except God be with him—nay more, no man can do any true, noble, enduring work, 'except God be with him'. First and last, whoever the workman, he is nothing 'except God be with him'. 'I believe,' said Dr. Long, 'that my profession is a ministry of God to me,' and, again, speaking of his discovery of anaesthesia, by means of sulphuric ether: 'My only wish about it is to be known as a benefactor of my race'. Can you wonder that a man who acted upon these sentiments, was a man of prayer? No one could be much with Dr. Long under the pressure of anxiety in the sick room and not see prayer in the meditative stillness of his eyes.

"The event of his career was the discovery to which I have alluded. Fortunately for the truth of history, Dr. J. Marion Sims, a distinguished physician of New York City, undertook, last year, to settle the claims of rivals to the first use of anaesthetic agents for surgical operations. With that disinterested energy and manly devotion to the interests of medical science, for which Dr. Sims is so justly and so widely celebrated, he collected the facts bearing upon the points at issue. The result of the inquiry leaves no doubt as to the first discovery, and Dr. Long is now regarded in this country and in Europe as entitled to this great honor.

"Standing here in the presence of his remains, I am this day but the voice of the church, of his professional brethren, and of this whole community, when I say that in Dr. Long's death we have lost an excellent man. He assumed nothing, was thoroughly truthful in looks, tone, manner and action, lived simply, treated every one courteously, and walked humbly before God. Modest even to the verge of timidity when nothing serious was at stake, he was stern and bold and utterly forgetful of self, if responsibility had to be met, or danger confronted. Reticent as to his own merit, reticent, too, of his troubles, lest he should disturb the happiness of others, he had none of that morbidness which retires into its capacious self and inflicts the pain of a chilling reserve on all who have

the misfortune to come within its reach. Gentle, forbearing, faithful to every wise instinct, he kept the covenant of a heart's true life, 'til his days were numbered. He had strength of will and much power of endurance. The minor heroisms which make up so large a share of a physician's experience, and of which the world knows so little, wrote many a paragraph in the annals of his life.

"Emphatically applicable to him are Wordsworth's lines, that—

"The facts of human existence
Did take a soher coloring from his eye,
That had kept a watch o'er man's mortality'—

and appropriate to him those other words, also,

"That best portion of a good man's life—
His little, nameless, unremembered acts of kindness
and love.'

"It hecame him thus to live. It hecame him thus to die while discharging the holiest duty of his profession, hy the hedside of a lady whose life was threatened. And, if we have this afternoon to commit his mortal remains to the grave and say: Friend, hrother, physician, henefactor—in the language of grief's litany, 'dust to dust,' we sball give the manly virtues and Christian integrity of Crawford W. Long a dwelling place where so many of the elect of our life and love are already gathered:

"Beneath the umhrage deep
That shades the silent world of memory.'

Resolutions by Fellow Physicians

In the Athens Banner Watchman of July, 1878, I find the following account of Resolutions adopted at a called meeting of the physicians of Athens held July 6, 1878, to-wit:

"Dr. C. W. Long was born in Danielsville, Madison county, Georgia, on the 1st of November, 1815. He graduated at Franklin College, University of Georgia in 1835. He studied medicine and graduated in the Medical



The Home at Danielsville, Madison County, Ga., where Dr. Long was born, November 1, 1815.

Department of the University of Pennsylvania in 1839, and died at Athens, Georgia, June 16, 1878, having been for nearly forty years engaged in the practice of medicine.

"Dr. Long was an honor to the profession, regarding it as a medium through which to make his life a blessing to the world.

"He was a high minded Christian gentleman, always just and liberal

toward his professional brethren, holding sacred their reputation as his own by observing the highest code of medical ethics in all his association with them. He was never heard to make reflections or criticisms detrimental to any with whom he was called in consultation. As such all his neighboring practitioners held him in the highest esteem and confidence, and, almost invariably, Dr. Long was called in to attend the sick chamber of physicians and their families.

"Truly did he subordinate his desire for fortune and fame to the one great purpose of benefitting his race. His highest ambition was to do good and leave the world better by his labors. Truth, honor and candor marked his character, while he cultivated the noble qualities of love and mercy.

"His sympathy for woman was always manifest in his self-sacrificing devotion for her relief and comfort in her hours of trial and suffering, so nobly displayed in the very last act of his life.

"Resolved, 1st, That his professional brethren do most heartily endorse the claim (as so clearly proven by Dr. J. Marion Sims, of New York), of Dr. C. W. Long as the first discoverer of anaesthesia by the use of sulphuric ether.

"Resolved, 2d, That the highest honors are due his memory for his discovery, by which so much pain and suffering have been spared, and that we will ever regard him as a true philanthropist and benefactor of mankind.

"That we earnestly request the legislature at its next session to make an appropriation for the erection of a suitable monument in honor of Crawford W. Long as the first discoverer of anaesthesia, to be located at the University of Georgia or at the capital of the State; and furthermore, we request the delegates who attend the American Medical Association from Georgia to bring Dr. C. W. Long's claims to the discovery of anaesthesia prominently before that body and urge that such steps be taken as will secure to the memory of one who has done so much for the profession and the alleviation of suffering, his just due.

"Resolved, 3d, That a copy of these resolutions be sent to the family of the deceased, also to the Southern Banner, Southern Watchman, Southern Medical Record and the Virginia Medical Monthly for publication.

G. L. McCleskey, M. D.

John Gerdine, M. D.

Wm. King, M. D.

R. M. Smith, M. D.

J. E. Pope, M. D.

J. B. Carlton, M. D.

Committee."

The Georgia Medical Association had its origin in a meeting of physicians in Macon, Ga., March 20, 1849. The meeting was called by the Medical College of Georgia and the local societies of Savannah and Macon. About eighty delegates were present, Dr. Long being one of them, and the following officers elected:

Tribute of Dr. Howard Williams

President, Dr. Lewis D. Ford, Augusta; First Vice-President, Dr. R. D. Arnold, Savannah; Second Vice-President, Dr. Thos. R. Lamar, Macon; Corresponding Secretary, Dr. J. M. Green, Macon; Recording Secretary, Dr. Chas. T. Quintard, Macon.—(From History of Medicine and Surgery in Georgia, by Luther B. Grandy, M.D.)

I copy the following from the address of Howard J. Williams, A. M., M. D., delivered at Macon, Ga., before a meeting of the surviving members of that body at the time of its fiftieth anniversary:

"Of these, one truly great, one name sublime,
Will ring with praise, so long as art and time
Shall last—and men grow ill—Crawford W. Long.
May his fair name resound in prose and song

While ether robs the surgeons' knife
 Of its sharp edge, which wounds in saving life:
 Unrivalled merit his to ether's fame,
 Yet this renown others unjustly claim.
 Be ours the task, with credit to unroll
 His honor just on Fame's eternal scroll—
 Nor let this day the flaming sun go down
 Until a fund begins with which to crown
 His grand success in marble white or brass
 Of statue great, so all may see who pass,
 And the unnumbered many thousands can
 With ringing voice exclaim, behold the man
 Whom God the ethereal art hath showed
 Once used when Eve on Adam was bestowed."

From His Daughter's Pen

To embellish these pages and as evidence of the love which Dr. Long inspired in those most dear in the immediate circle of the family and to portray the fact that he illustrated that "true pathos and sublime of human life" in making a "happy fireside clime for weans and wife," I reproduce the poem written by his daughter, Miss Emma Long, now of Athens, soon after the bereavement of the family's loss.

I

Father, we miss thee in the summer hours,
 The starlit nights,
 When hov'ring o'er the pale, forsaken flowers
 The glow worm lights,—
 And slowly fall the twilight dew to kiss
 The weary earth:
 While ev'ry scene seems only fit for bliss
 And love and mirth:
 They mock our lonely grief and laugh to scorn
 Our bitter loss,
 Whose stricken hearts must bleed and bear forlorn
 Life's heaviest cross.

II

Through all the spring, death, unseen, waited near
 With silent tread,
 And deeper grew the shadow dark and drear
 Around thy head.
 Nor didst thou dream how close its footsteps drew
 To bid thee come,
 While we, with song and smile, as little knew
 Thou wast near home:
 When wafted down on wings of dusky night,
 No voice or breath,
 Two angels came—the one of holy light,
 And one—of death.

III

As glow the stars of morn, then sink and fall,
 And hide their ray,
 As distant echoes slowly trill and call
 Then die away,
 So calm they floated through the sombre air
 The midnight gloom.
 One bore a flower from Eden, pure and fair
 On Earth to bloom,
 The other, nearer drew and laid his touch
 So icy cold
 On one we loved, for Christ had need of such
 In his dear fold.

IV

Father, thy tender voice will never cheer
 Our home again,
 No more its tones will soothe our fear
 Or chase away our pain,
 Thy tired patient hands that toiled on
 Are folded now,
 And brain that thought and strove 'til strength was gone
 Is resting low.
 The heart that throbbed so oft for others ills
 Throbs now no more,
 Thy feet have reached the radiant summer hills,
 Beyond the shore.

V

There is a city where a last retreat
 Awaits us all,
 So calm, so still, we hear no sound of feet
 Or voices fall;
 No fevered dreams are there, nor aught to wake
 From slumbers deep—
 No winter's cold, nor summer's heat can break
 Their holy sleep.
 They safely lie; life's fitful dreams are past—
 Its toils and grief—
 For here each weary spirit finds at last,
 A sweet relief.

VI

Bright shining through the trees the sunbeams play
 And gild the ground,
 They glimmer on the tombs of those who lay
 At rest around.
 O'er thee, dear one, no stately column rears
 Its lofty head,
 Thy life, thy noble life, is all that cheers
 Thy humble bed;
 Though known to few, thy unrewarded fame
 Was truly won,
 Some day thy Nation's heart shall proudly claim
 Her gifted son.

Memorials to Dr. Long

(1) In 1878 Dr. Marion Sims of New York, through Hon. Benj. H. Hill, Senator of Georgia, presented to the State a heroic size oil painting of Crawford W. Long, to be hung in the hall of the rotunda of the State Capitol building at Atlanta among the paintings of the National and State heroes, warriors, statesmen and other distinguished Americans, which adorn those walls. The portrait was received by the Governor of the State amid ceremonies of presentation, after an oration by Senator Hill, in the presence of a joint session of the Senate and House of Representatives of Georgia.

HALL OF FAME AT WASHINGTON, D. C.

(2) After Congress passed the act creating and establishing the National Hall of Fame, the Legislature of Georgia created a commission to select the names of those two Georgians whose statues should be placed in the Hall, representing Georgia's two most distinguished sons. Governor Allen D. Candler appointed the following as that commission: Judge Columbus Heard, Chairman; Madison Bell, Secretary; Fleming G. DuBignon, Clark Howell, E. B. Gresham, John Allen, A. L. Hull, L. G. Hardman, Hiram P. Bell, J. B. Park, C. C. Houston, George Hillyer, John Little, William Harden, Spencer Atkinson, and A. L. Miller.

The commission met in the State Library July 1, 1902, and the name

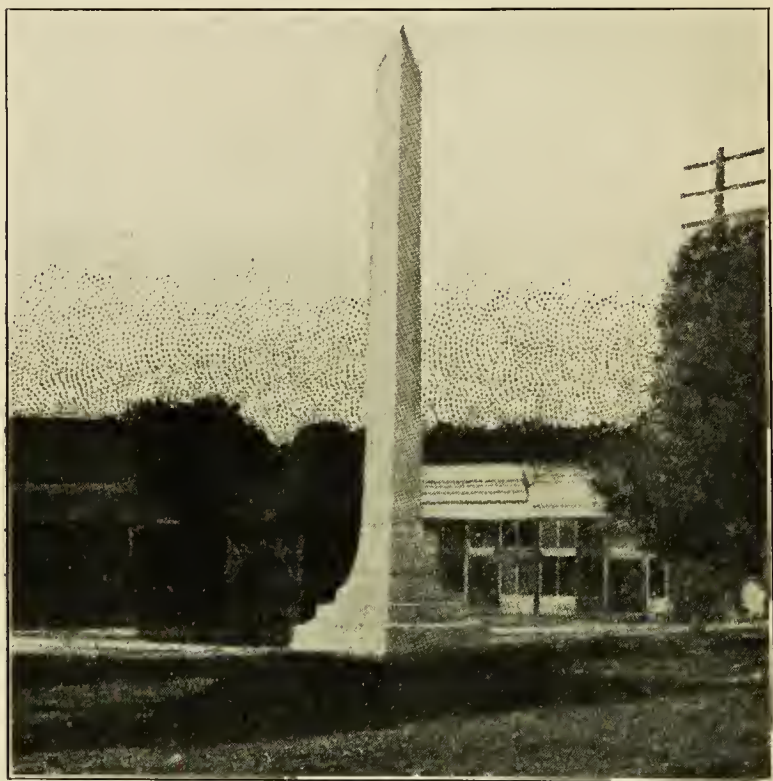
of Crawford W. Long was selected as one of the two whose statues should be placed in Statuary Hall at the Capitol building in Washington, D. C.

The actual compliance with this selection and legislative action awaits completion until the General Assembly shall make the proper appropriation and enact the necessary resolution providing for a committee to execute the work.

(3) The New Orleans Medical Association passed resolutions uniting with the Medical Society of Georgia in recommending that the memory of Dr. Long be commemorated by a statue. He was referred to as "one whom they regarded with pride and admiration, not only as one of the South's most illustrious sons, but one of the greatest benefactors America had given to the world" His claim for the recognition and gratitude of his fellow man rests upon benefactions which are not limited by the boundaries of states or nations, but are as vast as humanity itself.

(4) The National Eclectic Association at its annual meeting held at Cleveland, Ohio, June 18, 1879, passed a resolution declaring among other things:

"This association takes this action to declare its appreciation and recognition of the inestimable services rendered to medical science and



Monument in Public Square at Jefferson, Ga., Erected by Dr. L. G. Hardman, of Commerce, in honor of Dr. Long as the discoverer of anæsthesia.

humanity, and express its consideration of the vast debt of gratitude due to the late Crawford W. Long of Athens, Ga., the discoverer of anæsthesia.

sia, and hereby agrees cordially to unite in any public endeavor to honor his memory."

(5) The sixty-first session of the Georgia Medical Association was held at Jefferson, Jackson county, Georgia, where Dr. Long performed the first operation with ether, without pain. One of the days of the session was devoted to exercises attending the presentation and unveiling of a stone monumental shaft on the public square in Jefferson. This monument was the gift of Dr. L. G. Hardman, a physician resident in Commerce, to the Jackson County Medical Association, and by them presented to the town of Jefferson.

Before introducing Dr. Long's daughter, Miss Emma Long, who unveiled the shaft, Dr. Hardman, said, in part:

"I have given the monument in his honor because of the great relief he has brought to the human race and the great number of lives the discovery has made possible to save through this agency. I was prompted by the great admiration I had for this meek, noble and great physician, and believed it would be an inspiration to youths of future generations.

"At the last meeting of the Georgia Medical Association which Dr. Long attended, I had the honor of rooming with him, and though I was but a boy, the inspiration which I received from this great man still lingers with me. This shaft but feebly expresses the love and veneration I feel for his memory."

Those who participated directly in the memorial services were: Dr. Thos. J. McArthur, President of the Association, Rev. R. S. McGarrity and Gilbert Dobbs, Hon. H. W. Bell, Drs. L. G. Hardman and W. B. Hardman, Thos. R. Wright, Woods Hutchinson, W. P. Spratling, King B. Moore, Floyd W. McRae, Joseph Jacobs, Pleasant A. Stovall, S. Theo. Ross, L. C. Allen and Miss Emma Long, youngest daughter of Dr. C. W. Long. Among the guests of the occasion were many patients to whom Dr. Long had administered the anaesthetic.

At the Monument Unveiling

On that occasion I had the pleasure of paying the following brief tribute to the honor of my distinguished friend:

"It was here, in Jefferson, Georgia, amid other scenes in this historic town that I spent the happy years of my early childhood; days that I now often recall in meeting and greeting the friends of 'lang syne'. And I esteem it a pride-inspiring fact that I often played amongst the shades of the home and office of that great man whose memory these ceremonies are designed to freshen and honor; and who, in years of my young manhood, became my employer, tutor, guide and friend.

"The man and the event which the shaft you erect is designed to commemorate are both worthy of the plaudits and the gratitude of the generations of men.

"As a man and a physician, Crawford W. Long illustrated in his life and activities every attribute of true greatness. Gentle and benevolent in disposition; possessing all the graces and adornments of culture; true in all his relations to family, to country and to life, he was yet forceful in the busy world of affairs.

"His activity as a physician; his efficiency as such, and his success as a pharmacist was ever in the midst of compeers who rendered him the meed of their friendship, and the boon of their love. The humble and the lowly; the poor and afflicted found in him, at all times, an advisor without guile, and a benefactor without stint. The great men of his day were his constant friends and his cheering comrades. They delighted in the social flow of his good humor and his generous good cheer, and confidently submitted to his skill and ministrations as a physician.

"He lived during the high tide of our Georgia ante-bellum prosperity, in a section abounding in 'honest men and bonny lassies,' and in wealth of goods and wares, and the products of the gardens, fields and forest,

and when our people enjoyed in most abundant measure opportunity for social pleasures and intellectual pursuits.

"Among his many companions and friends, and one, who during his lifetime appreciated his great worth, and after his decease fought to preserve the pre-eminence of his fame, was Georgia's great commoner, Alexander H. Stephens, and I have ever thought that it was most fitting that their statues should stand side by side in our Federal Hall of Fame; and, pardon my Georgia pride when I say that in that hall, par nobile pratum, they will be the 'noblest Romans of them all'.

"Crawford W. Long, on the 30th day of March, 1842, performed the first successful operation in surgery with the use of sulphuric ether, and thus became the discoverer of practical anaesthesia, and worthy of being remembered as one of the world's greatest, if not mankind's greatest benefactor.

"The people of Jackson County are themselves honored in the erection of this monument to him, and to the event he created, and they have fashioned another adornment on her soil to brighten and widen the fame of fair and glorious Georgia.

"Such shrines as these are pilgrim shrines,
Shrines to no creed or code confined,
The Delphian vales, the Palestines,
The Meccas of the mind'."

(6) A memorial hospital has been built and put in operation on the campus of the University of Georgia at Athens, and named the Crawford W. Long Infirmary. It is devoted to the care and cure of the sick or injured students of the University. It was furnished by contributions made by the Athens Chapter of the Daughters of the Confederacy.

(7) At the twentieth state conference, the war conference of the Georgia Daughters of the American Revolution collected means to provide an endowment for a hospital bed in France to be known as the Crawford W. Long memorial bed. This bed was placed in the hospital at Neuilly, France, three miles from Paris.

(8) George Foy, M. D., F. R. S. C., F. R. A. M., substantiates Dr. Long's discovery in the British Medical Journal, and before the British Medical Conference.

Dr. Long's portrait hangs in the Anaesthetists Hall of the Royal Society of Medicine, London.

Honored by England

Photographed copies of Dr. Long's proofs of his discovery of surgical anaesthesia are on exhibition at the Medical Museum, London. Foreign Medical Journals give Dr. Long credit of discovery—even Journals of Australia. Dr. Foy has published much of Dr. Long's work in Foreign Journals. Dr. Dudley Buxton, London, recently read a pamphlet before the Royal Society of Medicine, London, advocating Dr. Long's claims.

(9) Dr. David Cerna, Cahuila, Mexico, member of the Academy of Science, says in Texas Medical Journal, translated from La Escuela de Medicina, Mexico City:

"It is but fitting that the Legislature of Georgia shall place the statue of Crawford W. Long in the National Gallery of Statues at Washington. But that is not enough. A statue of Crawford W. Long should be raised in every medical school, in every hospital, in every public institution, the world over."

(10) Honors by his Alma Mater, University of Pennsylvania.—I gather the following data from a special bulletin of the University Bulletins, to-wit: Twelfth Series, No. 4, Part 8. Reprint from Old Penn, April, 1912. In a preface, Dr. R. Tait McKenzie, says:

"In the summer of 1910 at the British Medical Association in London, Mrs. Francis Long Taylor presented original documents proving that her father, Crawford W. Long, gave ether as anaesthetic for surgical purposes in 1842, four years before any other claimant for the discovery. While

this had been known by authorities on anaesthesia, she felt that her father's memory should have wider recognition; and it has been her self-appointed and filial task to place the facts before the profession, lest her father's modesty and self-effacement should result in their being neglected or forgotten."

This made his fame secure in England, and when the University of Pennsylvania decided in the same year to celebrate the seventieth anniversary of this great discovery made by her graduate, by unveiling a memorial bronze to his memory, Mrs. Taylor felt that her life's ambition had at last been gratified and that the whole world would now recognize his undisputed claim.



Bronze Medallion of Dr. Long, unveiled March 30, 1912, on the anniversary of his great discovery, by the University of Pennsylvania, his Alma Mater. Made from Crayon Portrait at the age of 26.

The form of the memorial is a medallion, which enabled the artist to put on record the story of the first operation in plastic form and also to use as a decoration an appropriate inscription, neither of which would be possible in a bust.

The only available pictures were a crayon of Dr. Long at twenty-six, and a steel engraving at sixty. They have little in common so far as likeness is concerned, but, as he was a graduate of only two years' standing when his first operation was performed, the crayon drawing, crude as it was, formed the basis on which the head was modeled. Work was started in the autumn of 1910, and has passed through many vicissitudes and changes of arrangement and composition.

The completed medallion shows the young doctor bending forward over a recumbent patient, dropping ether from a bottle held in the right hand on the towel that partly covers the patient's face and watching, intently, the patient's respiration. A spray of poppy leaves and pods rise from either side of the plate, bearing the words:

"Class of '39 Pennsylvania," while the circular inscription above the head runs in two lines: "To Crawford W. Long. First to Use Ether as an Anaesthetic in Surgery," "March 30, 1842. From his Alma Mater. Born 1815. Died 1878."

Ceremonies at Unveiling of Tablet

"Dr. Crawford Williamson Long, who first made use of ether as an anaesthetic for surgical purposes on March 30, 1842, was memorialized on Saturday afternoon, March 30, 1912, when a handsome gilt bronze medallion was unveiled in his honor. The exercises were held in the Medical building of the University of Pennsylvania. Addresses were made by Dr. J. William White of the University, and Dr. J. Chalmers Da Costa of Jefferson Medical College. The medallion was modeled by Dr. R. Tait McKenzie of the University, and represents Dr. Long administering ether to a patient about to be operated upon.

"Provost Edgar F. Smith presided and introduced the speakers, after a brief invocation of Deity offered by Rev. Robert Johnson of the Church of the Savior, of this city. The tablet was unveiled by Mrs. Florence Long Bartow of Athens, Ga., a daughter of Dr. Long, after the address of Dr. J. William White. Dr. J. Chalmers Da Costa followed, and the ceremonies closed by a brief reply by Hon. Samuel J. Tribble, who thanked the University on behalf of the family and the State of Georgia, for the honor the University had conferred on its illustrious graduate. The presence of three distinguished Southern ladies, Mrs. Francis Long Taylor, Mrs. Alexander O. Harper and Mrs. Florence L. Bartow, the daughters of Dr. Long, added great interest and dignity to the occasion. They came to Philadelphia for the express purpose of attending the ceremonies, and during their stay were the guests of the University."

I wish that space would permit me to quote in full the splendid resume given by Dr. White of the history of the University of Pennsylvania, and of its professors and the achievements in science made by its alumni, but for the purpose of my biographical sketch I must confine my extracts to the concluding paragraphs of the remarks devoted to Dr. Long:

"It may certainly fairly be said that when Crawford Long came here at the age of twenty-three, he found, as he could have found nowhere else in America, the scientific traditions, the intellectual stimulus to original thoughts and deeds, the 'atmosphere,' in a word that was favorable, probably essential, to his later achievement.

"It is tempting to continue to try to show by our records, that, while Crawford Long's name, and therefore the name of this School are identified with the greatest contribution to medical science yet made by America, there has been done here during the seventy years that have elapsed since that memorable March 30, 1842, much work that has already notably increased the sum of useful knowledge, and much more that will doubtless prove to be the foundation of some now unsure and unimagined addition to medical science.

"Gerhard, who first clearly differentiated between typhus and typhoid fevers; Pepper, with his fundamental examination of the pathology of pernicious anemia; H. C. Wood, who first led the profession of the country to the intelligent study of the physiological action of drugs; Wormley, with his classical work on the micro-chemistry of poisons; Mills, with his researches into cerebral localization; Flexner, with his fruitful investigation of the cause of bacillary dysentery; Osler, with his study of the hematozoon of malarial fever; Guiteras, with his description of filariasis; Allen Smith, with his discovery of the hookworm disease; Leo Loeb, with his experiments in tumor-transplantation—these are but a few—not one

in twenty—of the names and achievements that jostle one another for recognition, some of them belonging to the generation just reaching scientific maturity.

"The list would, however, be inexcusably incomplete without mention of that great contribution to general science made by Reichart & Brown and recently published by the Carnegie Institute—a work which extends the doctrine of evolution to the physical construction of the protoplasmic molecules of animals and plants, and opens an endless field of application to the difficult problems of specific growth and the most intricate phases of physiology and pathology. The great teachers, the distinguished practitioners, the writers of text books that have been the guides and consultants of thousands of medical men, extend in an unbroken line from Rush, Wistar, Horner, Barton, Chapman, through Still, Carson, Agnew, Pepper, Leidy, Penrose, Wood and Goodell to the present day.

A Thing Given to But Few

"It is a gratification to think that we are participating in exercises destined to add beyond cavil or future question the name of Crawford



Mrs. Florence Long Bartow, one of Dr. Long's daughters, who died in Athens, in July, 1919.

Long to that list of distinguished Pennsylvanians who have well and belongs and we may feel that his never-to-be-forgotten act will be more faithfully served their profession and their country. There it rightfully than ever a source of pride to successive generations of our students and alumni. So great a feat may never be duplicated. It is not given to many to take the first step in wiping out immeasurable agony and suffering. And yet, who knows? Lord Lister told me that in his very earliest days in Edinburgh, when he was still uncertain whether to remain there or be-

gin his work elsewhere, Mr. Syme, who was then the leading surgeon of Great Britain, told him he would probably do well to remain there, but that it seemed there was really not much left to do in the way of advancing surgical science, little thinking at the time that the young man he was talking to—his future son-in-law—would almost alone and unaided effect the greatest revolution in surgery and bring about the greatest step in advance, which has been made since Harvey discovered the circulation of the blood. * * *

"Some day anaesthesia and asepsis, immeasurably the greatest advances of this age, may have only historic interest. But it is well to think, in looking back, that the names of Crawford W. Long and the University of Pennsylvania will always be associated with the first of these, and that, if we look forward, there is reason to hope and believe that these names will always be an inspiration to the thinkers, investigators and discoverers of the future."

Having now, from facts residing in my own knowledge and from memorabilia collected and furnished by Dr. Long's gifted daughters, presented such data as might be deemed interesting, connected with the life and labors of this great Georgian, Crawford W. Long, I recall that his credit for making this great "first discovery" has, in the past been denied, and claimed by others. This sketch of his life would be incomplete, should I omit to state the salient features of that controversy. In doing so I venture to reproduce here, a paper which I had the honor of reading before the Minnetonka, Minn., meeting of the American Pharmaceutical Association.

This paper was written after an exhaustive examination of authorities relating to the question and was prepared with a care and patience which I thought succeeded in eliciting the truth, a just verdict, as to the issues in the dispute, and I conclude this labor by inviting its perusal:

A DISTINGUISHED PHYSICIAN-PHARMACIST; HIS GREAT DISCOVERY, ETHER-ANÆSTHESIA

By Joseph Jacobs, Phar. D.

In our practical age, that is so prolific of discoveries and improvements in science, and in which the spirit of mercantilism tends to absorb and dominate all thought and action, it is not inappropriate for us, at times, to turn away from our discussions of technical topics and revert to subjects of historical and sentimental interest. Our country, so vast in area and so varied in the composite elements that constitute its social frame work, in point of age and historical moment, is still an adolescent in the family of nations.

But in the vigor of its youth and rapidity of its growth, the memorial materials of its history are being overlooked. Too often are they swept from the pathway of progress or neglected, and in future years it will be regretted that our generation has omitted to preserve the true records of American achievements.

I have thought it, therefore, not ill-timed that I should present the facts to this association connected with the discovery by an American physician-pharmacist of one of the greatest boons ever conferred upon humanity in the history of the world.

As the man who made the discovery for many years owned and conducted a pharmacy, and thus connected his life and name with our honored profession, it is entirely proper that we should share and feel pride in the lofty honor that history will accord to his memory.

I refer to the discovery of the uses of ether as an anaesthetic in surgical operations, and to Crawford W. Long of Georgia, the physician-pharmacist, who first employed this anaesthetic in those operations. True, he was a practicing physician, but for many years he devoted himself to the interests of pharmacy, and was intimate with the pharmacists of his day in social and business relations, and it is entirely proper that we, as pharmacists, shall treasure the glory of his greatness, as, in part, a portion of our own history.

There have been four claimants for the great honor of this discovery, all Americans: First, Crawford W. Long, physician-pharmacist of Georgia; second, Charles T. Jackson, physician-scientist of Massachusetts; third, Wm. T. G. Morton, dentist of Massachusetts; fourth, Horace Wells, dentist of Connecticut.

For fifty years the medical journals and scientific publications have contained conflicting articles upon the subject of the discovery of the use of ether; and the controversy does not seem ended yet, for, on the 30th of September, 1896, there was a public celebration at Boston, Mass., at the Massachusetts General Hospital, of the "Fiftieth Anniversary of the Discovery of Anaesthesia by Wm. T. G. Morton," which celebration gained wide notice in newspaper publications.

I do not hope that what I here say will be uncontroverted, and I frankly confess that I may be animated by personal feelings in venturing to advocate the claims of Crawford W. Long before this intelligent and representative body; for I knew him well, and in my youth learned to reverence and admire him while an employe and pupil in his pharmacy, and shall ever remain grateful for his kind friendship and valued instruction; but, as the friends of the other claimants continue to put forth and revive their claims, to which the attention of all the members of this body have doubtless been directed, it is but fair and just, while the process of moulding the final verdict is going on, that the distinguished Georgian shall have the merits of his title fully disclosed.

Each of the claimants thus far has had the recognition of organized bodies of men.

The claims of Chas. T. Jackson were recognized by scientific bodies in France and Prussia, before whom the claims of none of the others were presented.

The claims of Horace Wells have been recognized by the State of Connecticut, that State having erected a monument at Hartford, inscribed, "Horace Wells, who discovered anaesthesia November 2, 1844."

A citizen of Boston, Thos. T. Lee, in honor of Jackson or Morton (it is not decided), erected a monument to the unknown discoverer of anaesthesia. Its main inscription is as follows: "To commemorate the discovery that inhaling of ether causes insensibility to pain, first proven to the world at the Massachusetts General Hospital in Boston, MDCCCXLVI."

The claims of Dr. Long have been recognized by the Georgia State Medical Association, by the American Association of Eclectic Physicians, and by the State of Georgia, in hanging his portrait on the walls of her capitol among those of the great men of the State and country.

I shall endeavor, in as succinct a manner as possible, and in a fair manner to all, to present the facts of the controversy. As to the time and main circumstances of the first use of anaesthetics by the four claimants, the following is a fair statement:

Crawford W. Long at Jefferson, Jackson county, Georgia, extirpated a tumor from the neck of James M. Venable, while he was under the influence of ether, without pain to the patient, on the 30th day of March, 1842.

Horace Wells subjected himself to the effects of nitrous oxide gas, and had one of his own teeth extracted without pain, to test the value of gas as an anaesthetic, on December 11, 1844.

Chas. T. Jackson did not administer ether in any operation, but, it is claimed, suggested its use to Dr. W. T. G. Morton, September 30, 1846.

W. T. G. Morton gave ether to a Mr. Frost, September 30, 1846, and extracted a tooth without pain.

The dates and the persons on whom ether was used in the four cases stated, are unquestionably established. In the case of Dr. Long, the patient's affidavit, and those of four students who were in Dr. Long's office, sustain Dr. Long's written statement. And in each of the three other cases the times at which the anaesthetics were used are as amply verified and fixed.

Hence, it is beyond dispute that Dr. Long's use of ether as an anaesthetic in surgery antedates Wells' use of nitrous oxide gas two years and eight months, and the use by Morton of ether by four years and six months.

If this be true, it will be asked, why has not Dr. Long been finally and fully recognized by mankind as the true and real first discoverer of the use of ether as a preventive of pain in surgical operations? This question can be answered, in part, by suggesting that the subject has been clouded in doubt, not as to the dates of the use of ether, but because of the controversy that grew up over the rival claims of Wells and Morton and Jackson before the United States congress, and in the persistency with which the friends of these claimants have urged and repeated their claims.

At the suggestion of Dr. Charles T. Jackson, as it is claimed by the advocates of Jackson (and this is fully substantiated), Dr. W. T. G. Morton, who was his partner in business, went before the surgeons of the Massachusetts Hospital of Surgery in the fall of 1846, four years after Dr. Long's discovery, and suggested that they test the efficacy of a new agent for preventing pain in surgery, which he called "letheon," and for which he and Dr. Jackson had applied for a patent from the United States government. Drs. Warren, Haygood and Bigelow, surgeons in charge of the hospital, consented to try the "letheon," which was nothing but ether disguised by aromatic oils. They, on the 16th of October, 1846, used it in removing a tumor from a young man, and afterwards, on November 7, performed the operations of amputation above the knee and in the excision of the lower jaw—all successfully and without pain to the patients. On the 27th of October, the following affidavit was made and taken, to-wit: "On this 27th day of October, 1846, personally came before me Charles T. Jackson and Wm. T. G. Morton, and made oath that they do verily

believe themselves to be the original and first inventors of the improvement hereinbefore described (alluding to ether as an anaesthetic), and they do not know or believe the same to have ever before been known or used, and they are citizens of the U. S. A.—(Signed), R. J. Eddy, justice of the peace."

Jackson and Morton applied for a patent in their joint name, but Jackson, fearing the censure of the Massachusetts Medical Society on the score of ethics, insisted on assigning to Morton all his rights under the patent, and that the patent issue in Morton's name, but took a private writing that he was to get ten per cent. of all made out of it.

As soon as the surgeons of the Massachusetts General Hospital were confirmed in the belief of the success of the discovery, Dr. H. J. Bigelow, one of the hospital surgeons, wrote an account of the use of "letheon" (to him then an unknown or secret substance), which was published in the Medical Examiner for December, 1846.

Morton commenced to sell his patent rights, and succeeded in disposing of a number of privileges to dentists and others for various territories.

In 1847, Drs. Jackson and Morton fell into difference, and waged a war of pamphlets, involving their respective claims to the discovery, and when, in 1854, Morton presented a memorial to congress, asking that the government pay him a large sum of money for the use of ether, and in honor of him being its discoverer as an anaesthetic, the friends of Wells and Jackson, as well as those of Dr. Long, interposed their claims and defeated the movement.

The claims of Wells were denied by congress, and now are generally conceded to extend no further than to the use of nitrous oxide gas, which, for the purpose of general surgery, cannot be substituted for ether.

The proofs are numerous, in the form of affidavits of mutual associates of Morton and Jackson, that Jackson did not in any way practically use or demonstrate the use of ether, and that Morton, who did use it, used it upon the suggestion of Jackson. The only claimant who originally conceived the use of ether in surgery, and himself experimented with its use to the extent of practically demonstrating its efficacy, was Dr. Long, and this was accomplished by him more than four years prior to the time of its use by Morton. Dr. Long did not publish in any printed form his discovery to the world until 1849, and then in the Southern Medical and Surgical Journal; but he made the discovery known to the students in his office and to practicing physicians at Athens, Georgia, and in all the territory surrounding him.

He made no secret of his discovery, but talked about it on every appropriate occasion to medical men, and was waiting for the opportunity to test it in a capital operation before writing about it in the scientific journals of the day. Meanwhile those operations before described were accomplished at the Massachusetts General Hospital, and through Dr. Bigelow the uses of ether were published to the world.

An examination of the evidence will clearly show that Dr. Jackson never at any time practically applied ether in a surgical operation, but merely suggested its use to Dr. Morton; that Dr. Morton did, at the suggestion of Dr. Jackson, apply and use ether successfully, but that his intention was to keep the process a secret, shown by his taking a patent on it, and in all his conduct; for, when at the instance of Dr. Jackson he permitted its use at the Massachusetts General Hospital, it was introduced and described as "letheon," a secret compound. By reason of differences between him and Dr. Jackson, co-partners in the patent, the nature of the substance became known to the hospital surgeons, and they published it to the world.

When the controversy between Morton and Jackson and Wells was raging before congress, Dr. Jackson learned that the use of ether had been known to Dr. Crawford W. Long in March, 1842, and in order to defeat the claims of Morton he made a lengthy journey to Athens, Georgia, to see Dr. Long, and tried to induce him to unite with him in jointly claiming the discovery. This Dr. Long refused, simply stating that he stood upon

the facts. Dr. Long made no effort before congress to obtain an appropriation, but the facts of his discovery were presented by Senator Wm. C. Dawson of Georgia, and these facts went far to defeat the claims of Morton, Wells and Jackson to a money donation from the general government. Dr. Long always said that the only reward he wished was to be considered a "benefactor of his race".

As between Jackson and Morton, it has been shown in an article prepared by Lord & Lord, attorneys for Dr. Jackson, and published in *Littell's Living Age* during the time of the controversy between them, by more than a score of affidavits from men associated with Drs. Jackson and Morton in 1846, that Morton never claimed to have had the original idea of using ether, that he invariably attributed the suggestion of its use to Dr. Jackson. He, Morton, was the mere agent, an automaton in the hands of Dr. Jackson. These affidavits, made in 1846-1847, while the discussion was at its height, almost unanimously state that Dr. Morton had acknowledged this fact in the presence of the affiants, and that he clearly and repeatedly stated that what he knew about ether as an anaesthetic was derived from the suggestion and teachings of Dr. Jackson.

I quote from only one of this score of affidavits; it was made by H. J. Payne, a surgeon-dentist of Troy, N. Y., April 12, 1848:

"On the second day of January, 1847, I went to Boston and sought an interview with Dr. Morton. I had a protracted interview with him with respect to the use and effect of the vapor of ether, its discovery, and the patent that had been taken thereupon. During this interview Dr. Morton stated emphatically and repeatedly that Dr. Chas. T. Jackson of Boston, was the sole discoverer of this new agent for producing insensibility to pain, and that Dr. Jackson had communicated it to him. Furthermore, that all the knowledge he possessed in relation to its properties and application had come to him from Dr. Jackson, and that he never had any idea of applying sulphuric ether, or that sulphuric ether could be applied for the aforesaid purposes, until Dr. Jackson had suggested it to him, and had given him full instructions. I then questioned Dr. Morton with regard to the patient, how he came to have an interest in it, etc. He replied that he had been very fortunate in effecting an arrangement with Dr. Jackson before any one else had the opportunity, and that he was the first man to whom the discovery had been communicated by Dr. Jackson, and added, 'I have made a great bargain'."

Now there are many such affidavits on record, showing that while Dr. Morton may have used ether in 1846, he never at any time conceived such use as an original proposition, but derived all his knowledge of its properties and the suggestion of such use from Jackson.

Here, then, the controversy narrows down to Jackson and Long, but it must be determined as to priority in favor of Dr. Long; for when Jackson was hard pressed by Morton during the effort before congress, he turned to Dr. Long, who had published an account of his use of ether in 1842, in the *Southern Surgical and Medical Journal* of 1849, and when Dr. Jackson had seen Dr. Long at Athens, Georgia, and had carefully studied the evidences of Dr. Long's use of ether in 1842, and of his having made it known to his community and to professional men with whom he was associated, he returned to his Boston home, himself convinced that Dr. Long had of his own original intuitions thought out the utility of ether, and had successfully applied it as a preventive of pain in surgical operations. And Jackson himself has admitted Dr. Long's claim to being the true and real discoverer in no less solemn manner than a written communication to a medical journal over his own signature. In the *Boston Medical and Surgical Journal* of April 11, 1861, Dr. Chas. T. Jackson says that he visited Dr. Long at Athens, Ga., on March 8, 1854, to examine into his claims to being the first to use sulphuric ether as an anaesthetic in surgery, and continuing says:

"From the documents shown me by Dr. Long, it appears that he used sulphuric ether as an anaesthetic:

"First—On March 30, 1842, when he extirpated a small glandular tu-

mor from the neck of James M. Venable, in Jefferson, Ga. (Now dead.)

"Second—On the 3d day of July 1842, in the amputation of the toe of a negro boy belonging to Mrs. Hemphill of Jackson county, Ga.

"Third—On September 9, 1843, in the extirpation of a tumor from the head of Mary Vincent of Jackson county, Ga.

"Fourth—On January 8, 1845, in the amputation of the finger of a negro boy belonging to Ralph Bailey of Jackson county, Ga.

"Copies of letters and depositions, proving these operations with ether, were all shown to me by Dr. Long. He also referred me to physicians who knew of the operations at the time."

Dr. J. Marlon Sims of New York, in 1877, in an article in the *Virginia Medical Monthly*, quotes the above extract from the article of Dr. Chas. T. Jackson, and adds: "The above extract from Dr. Jackson's paper to the *Boston Medical Journal* recognizes Long's claim to being the first to produce anaesthesia for surgical operations, but it does not tell the whole story of Dr. Jackson's visit to Dr. Long. Dr. Long has furnished me with all the evidence, consisting of affidavits, certificates, book entries, etc., that Dr. Jackson examined. He had also written to me fully on the subject, and every fact that I have stated can be sustained by documentary evidence. In one of Dr. Long's letters to me (November 5, 1876), he says: 'Dr. Chas. T. Jackson came to Georgia and spent two days with me at Athens, most of the time in my office; examining dates and certificates establishing the time, etc., of my operations, he expressed himself as satisfied with the correctness of my claim to the first use of ether as an anaesthetic in surgical operations. Dr. Jackson informed me he would go from Athens to Dahlonaga, Ga., and as I knew he must pass through Jefferson, where I resided up to 1850, and where my first operations under ether were performed, I requested him to stop in Jefferson and see some of the physicians there who witnessed or knew of the operations or were familiar with them from common report. Dr. Jackson spent one or more days in Jefferson, and on his return expressed himself as satisfied with the testimony. In Dr. Jackson's communication to the *Boston Medical and Surgical Journal*, he neglected to say anything of the information he received while in Jefferson, although he admitted to me on his return that the evidence was perfectly satisfactory.'" Dr. Sims, continuing, says: "The Hon. C. W. Andrews of Madison, Ga., informs me that he was in Dr. Long's employ and in his office when Dr. Jackson spent a whole day with Dr. Long in comparing notes and talking over the subject of etherization, and it seems that the real object of Dr. Jackson's visit to Dr. Long was to induce Dr. Long to unite with him in laying their conjoint claims before congress as the real discoverers of anaesthesia, as opposed to those of Morton. Jackson was willing to concede to Long the honor of being the first to use ether in surgical operations, but wished Long to concede to him the honor of priority in making the discovery of the principle of anaesthesia, when he inhaled ether to relieve the pain and difficulty of breathing after inhaling chlorine gas (as Sir Humphrey Davy had done before)."

Dr. Long says, February 8, 1877: "In our conversation, I understood Dr. Jackson to yield the point of priority to me, and so did the Hon. C. W. Andrews.

"I did not admit to him that he was the first to make the discovery—leaving to me its practical application; and when he proposed to me to unite our claims—he to claim the discovery, and I to claim its first practical use in surgical operations—I positively refused. I was satisfied I was entitled to the credit of the discovery, as well as of the first practical use of ether in surgical operations."

Dr. Jackson is further quoted by Dr. Sims as having said to Dr. Long during his visit to Athens: "You have the advantage of priority in date and in the first use of ether as an anaesthetic, but we have the advantage of the priority of publication."

But Dr. Sims, continuing, says: "Now, upon this point Dr. Jackson is evidently mistaken as to his advantage of priority of publication."

For abundant and indisputable evidence is given that Dr. Long did exhibit to medical men and to the community at large his operations under the influence of ether in 1842, while Wells, Morton and Jackson made no exhibit until as late as 1844 and 1846. It is true Dr. Long may not have published his discovery in the medical journals of the country, nor does it appear that the other claimants did; but exhibiting their experiments in the large cities of New York and Boston, of course better facilities were offered for disseminating the facts throughout the medical world. However, abundant evidence has been produced by Dr. Long to prove that he made no secret of his discovery, but, on the contrary, communicated it as rapidly to the medical fraternity as his restricted and limited facilities would permit, and the fact that he did not perhaps publish it through the medical journals makes him none the less the true discoverer.

Whatever credit may be due to the memory of Jackson and Morton and Wells for their researches and their use of anaesthetics, and whatever honor may attach to the eminent surgeons of the Massachusetts General Hospital for publishing the facts at home and abroad, the real glory of the first discovery and proof of the efficacy of ether for the prevention of pain in surgery must be finally awarded to Crawford W. Long, the eminent Georgian and lamented physician-pharmacist.

On my last visit to my old home in Athens, Georgia, I stood at the grave of this good and great man. On the bank of the beautiful Oconee River, in our Southland, with no monument of imposing grandeur, his resting-place marked alone with the simple marbles within the power of loved ones to place there, is the grave of the great discoverer; and the flowers that bloom in sweet profusion on the earth above him seemed to betoken the lofty sentiment I have heard him so often express, that he wished no recompense or reward for the priceless boon he had conferred on humanity, save the recognition that he had "been a benefactor to mankind."—Read at the Minnetonka meeting of the American Pharmaceutical Association, 1898.

"Tom Long," the old
Carved Hickory Sign
Which Stood for Many
Years in Front of the



Drug Store of Longs &
Billups in Athens. Now
in my office.

APPENDIX—DOCUMENTARY EVIDENCE

IN PROOF OF THE PRIOR AND ORIGINAL DISCOVERY OF SURGICAL ANAESTHESIA BY THE USE OF SULPHURIC ETHER BY CRAWFORD WILLIAMSON LONG OF JACKSON COUNTY, GEORGIA, AND OF HIS USE OF THE SAME IN SURGERY PRIOR TO THE DATES OF ITS USE BY OTHER CLAIMANTS:

These documents are in possession of Dr. Long's daughters of Athens, Georgia, and kept in safe deposit—the originals of the following letters, certificates, affidavits, original entries, memoranda, etc.

I

Georgia, Jackson County.

I certify that sometime during the early part of 1842, my son, James M. Venable, informed me that Dr. C. W. Long had cut out a tumor situated on his neck; that the operation was performed while he was under the effects of ether, and that he did not feel any pain from the operation. Some months later he informed me that Dr. C. W. Long had cut out another tumor without his feeling pain, while he was under the influence of ether. He made these statements to me soon after the tumors were cut out and before the cuts had healed. I have heard him speak of the operations frequently since, and he always made the same statement.

(Signed) Sarah Venable.

September 17, 1849.

II

Georgia, Jackson County.

I, Martha E. Pendergrass, do certify that I resided near the village of Jefferson, Jackson county, Georgia, in the year 1842, and in the month of January or February of that year, James M. Venable of said county, now deceased, was at my residence and showed myself and others a tumor on his neck, and stated that Dr. C. W. Long, then of Jefferson county, now of Athens, Ga., was going to try the experiment on him, viz: to cut it out, while he was under the influence of sulphuric ether by inhalation. In a short time after this he was again at my residence and showed myself and others who were present the scar, and stated to us that Dr. C. W. Long cut out the tumor from his neck, while he was under the influence of ether by inhalation, and that he felt no pain during the performance of the operation. I do further certify that the said James M. Venable stated that he was unconscious of the performance of the operation and also unconscious of pain during its performance. I do further certify that I heard it frequently spoken of by others that Dr. C. W. Long used sulphuric ether by inhalation to prevent pain in surgical operations in the years 1842 and 1843.

(Signed) Martha E. Pendergrass.

Sworn to and subscribed before me March 27, 1852.

N. H. Pendergrass, J. P.

III

I, Edmund S. Rawls, of the county of Laurens of State of Georgia, certify that in the year 1842, I resided at my father's in Jefferson, Jackson county, Georgia, and that I was present and witnessed Dr. C. W. Long cut out one tumor from the back of James M. Venable's neck, and that he was under the influence of sulphuric ether when the operation was performed. Mr. Venable did not show any signs of pain when the operation was performed and stated after the operation was over that he did not suffer the least degree of pain from its performance. I frequently inhaled ether for

its exhilarating effects and know that it was ether that was inhaled by Mr. Venable when the operation was performed.

(Signed) Edmund S. Rawls, M.D.

Sworn to and subscribed before me August 4, 1849.

F. H. Rowe, J. I. C.

IV

Georgia, Jackson County.

Personally appeared before me, N. H. Pendergrass, an acting Justice of the Peace, in and for said county, Robert J. Millican, who, being duly sworn deposes and says: that he is personally acquainted with Dr. C. W. Long, formerly of Jefferson, now of Athens, Ga., that deponent resided but a few miles of Jefferson in the years 1842, 1843 and 1844, that during the years 1842, 1843 and 1844, he heard from divers persons that the said Dr. C. W. Long did cut out two tumors from the neck of James M. Venable, formerly of said county, State aforesaid, while under the influence of the inhalation of sulphuric ether, without said Venable suffering pain during the operations, that said operations were performed in the year 1842 and the fact was notorious in said county.

(Signed) Robt. J. Millican.

Sworn to and subscribed before me this 27th of March, 1854.

N. H. Pendergrass, J. P.

V

Georgia, Thomas County.

Personally appeared before me John G. Lindsey who, being duly sworn deposes and says, that he was a classmate of James M. Venable in the Academy at Jefferson, Georgia, in the year, 1842, being in charge of Wm. H. Thurmond, Esq., and that some time during that year, there was a surgical operation performed on said Venable, by Dr. C. W. Long, while, as he the said James M. Venable has repeatedly told me, was under the influence of sulphuric ether, administered by said C. W. Long. I recollect to have heard him, Venable, say, often, in conversation with others, that the operation was performed without any pain whatever. The operation was the cutting of a tumor or wen from the back of said Venable's neck. I know I cannot be mistaken, as it was the only year Mr. Thurmond ever had charge of the Academy at Jefferson.

(Signed) John G. Lindsey.

Sworn to and subscribed before me this 12th day of December, 1853.

James H. Hayes, J. I. C.

VI

Athens, Clarke County, Georgia.

August 15, 1878.

I, the undersigned, do certify that in May, 1843, I assisted Dr. R. D. Moore in amputating the leg of a colored boy, Augustus, then the property of Mr. Wm. Stroud, who resided in this county, that I distinctly recollect hearing Dr. R. D. Moore say: That if I had thought of it before leaving home I would have tried Dr. C. W. Long's great discovery, viz: the administration of sulphuric ether in performing the operation. Having neglected to bring the ether, Dr. Moore finally concluded to influence the patient with morphia, under which the operation was performed.

(Signed) Jos. B. Carlton, M.D.

VII

I do certify that Dr. Crawford W. Long of Jefferson, Ga., advised my husband, Dr. Joseph B. Carlton, a resident of Athens, Ga., to try sulphuric ether as an anaesthetic in his practice in November or December, 1844. While on a visit to that place, in the office of Dr. Long, my husband extracted a tooth from a boy who was under the influence by inhalation of sulphuric ether, without pain. I further certify that the fact of Dr. Long using sulphuric ether by inhalation to prevent pain in surgery was

frequently spoken of in the county of Jackson at that time and was quite notorious.

(Signed) Mrs. Emma W. Carlton.

Sworn to and subscribed before Frank Betts, January 29, 1907.

F. Y. Algood, N. P. Clarke Co., Ga.

VIII

Athens, Ga., August 10, 1878.

This certifies that in the month of May, 1843, I was present and assisted Dr. R. D. Moore in amputating a leg. He said to his three students, I being one: If I had thought of it before leaving home, I would have tried Dr. C. W. Long's great discovery, producing insensibility by inhalation of ether.

(Signed) James Camak, M. D.

Attest: Asa M. Jackson, Ordinary Clarke Co., Ga.

IX

Georgia, Jackson County.

We, John Venable, Delilah Venable, Elizabeth Duke and Mary Jane Davis, do state that the certificate made out by us to Dr. C. W. Long in the year 1842 in regard to cutting out two tumors from the neck of our late brother, James M. Venable, while he was under the influence of the inhalation of sulphuric ether, and without pain, is true. We also certify that our brother, James M. Venable stated that he was unconscious of the performance of the operations and also insensible to pain during their performance; and that these statements were made soon after the tumors were cut out and during the year 1842.

(Signed) John Venable,
Delilah Venable,
Mary Jane Davis,
Elizabeth Duke.

Sworn to and subscribed before me March 25, 1854.

N. H. Pendergrass, J. P.

X

Georgia, Jackson County.

I, Milton Bailey, certify that I was present in the early part of the year 1845 and witnessed Dr. C. W. Long cut off two fingers of a negro boy, Isom, the property of my father, Ralph Bailey, Sr. Before cutting off one finger, he gave the boy, Isom, sulphuric ether to inhale from a towel and while under the effects of the ether, Dr. Long cut off the finger, without the boy showing the least sign of pain or suffering during the operation. There was no attempt made by Dr. Long to conceal the nature of the medicine inhaled, but he informed those present what the article was. From what Dr. Long said at the time and immediately before the operation was performed and from my previous knowledge of the effects of ether when inhaled, I know it was sulphuric ether inhaled by the boy, Isom. I also heard the boy say after the operation that he felt no pain at the time the finger was taken off.

(Signed) Milton Bailey.

Sworn to and subscribed before me this 2d day of March, 1854.

N. H. Pendergrass, J. P.

XI

Georgia, Clarke County.

I, Joshua N. Glenn of Carnesville, Franklin county, Georgia, on oath, depose and say that I was a pupil in the Academy at Jefferson, Georgia, at the time Dr. Crawford W. Long cut out two tumors from the neck of James M. Venable. I was not present at the time either operation was performed, but I saw Mr. Venable soon after their performance and he informed me that they were cut out while he was under the influence of sulphuric ether produced by its inhalation and that he did not suffer pain from the removal of either of them. These operations, according to my recollection, were performed in the year 1842.

Joshua N. Glenn.

Sworn to and subscribed before me, 26th November, 1853.

John Kirkpatrick, J. P.

Georgia, Cobb County.

I, James M. Venable of said county of Cobb, and State of Georgia, on oath depose and say that in the year 1842, I resided at my mother's in Jackson county, Georgia, about two miles from the village of Jefferson, and attended the village Academy that year. In the early part of that year the young men of Jefferson and the county adjoining were in the habit of inhaling ether for its exhilarating effects and I inhaled it frequently and was very fond of its use.

While attending the Academy I was frequently in the office of Dr. C. W. Long, and having two tumors on the back, or, rather, the side of my neck, I several times spoke to him about the propriety of having them cut out, but postponed the operation from time to time.

On one occasion we had some conversation about the probability that the tumors might be cut out while I was under the influence of sulphuric ether, without my experiencing pain; and he proposed operating upon me while under its influence. I agreed to have one tumor cut out, and had the operation performed that evening after school was dismissed. This was the early part of the spring of 1842. I commenced inhaling ether before the operation was commenced and continued it until the operation was over. I did not feel the slightest pain from the operation, and could not believe the tumor was removed until it was shown to me.

A month or two after this time, Dr. C. W. Long cut out the other tumor, situated on the same side of my neck. I did not feel the least pain until the last cut was made, when I felt a little pain. In this operation I stopped inhaling the ether before the operation was finished. I inhaled the ether in both cases from a towel, which was the common method of taking it.

(Signed) James M. Venable.

Sworn to and subscribed before me July 23, 1849.

Alfred Manes, J. P.

XIII

Jefferson, Jackson County.

We certify that we are well acquainted with James M. Venable, and that we have heard him speak frequently of Dr. C. W. Long cutting out two wens from his neck while he was under the influence of sulphuric ether, and without his suffering pain from the operation. Some of the conversations took place after the first wen was cut out and before the cut was healed. The first conversation with him on the subject was some seven or eight years ago (1842). Since then we have heard Mr. Venable speak of the operations and he always asserted that he did not suffer pain from the operations and that they were performed while he was under the influence of sulphuric ether.

(Signed) Jos. W. Allen,
Camilla S. Few,
James E. Hayes,
Wyatt Wood.

XIV

Georgia, Jackson County.

I, James E. Hayes of this county and State aforesaid, do state that I was a pupil in the Academy in the village of Jefferson, Jackson county, Georgia, in the year 1842, and then under the charge of Wm. H. Thurmond.

Sometime during that year I was present in the office of Dr. C. W. Long, then of Jefferson, but now of Athens, Ga., and witnessed the said Dr. Long cut out a tumor or wen from the neck of James M. Venable, now deceased, while the said Venable was under the influence of sulphuric ether, produced by the inhalation of the same. The said James M. Venable became entirely unconscious of the performance of the operation and insensible to pain until an instant before the operation was finished. The operation required some time for its performance. I know I cannot be mistaken in the year in which the operation was performed, nor in the fact that it was sulphuric ether inhaled by said Venable. I had previously and frequently seen sulphuric ether inhaled for its exhilarating effects

and was acquainted with its smell. I think there was but little difference in my age and that of James M. Venable, and to the best of my information we were at that time about the age of twenty-one years. The operation was publicly performed, and Dr. Long made no attempt to conceal the character of the article inhaled, nor made any request that the result of the operation should be kept secret. The operation witnessed by me was the second one performed on said James M. Venable by Dr. C. W. Long. Previous to the performance of this operation the said James M. Venable informed me that Dr. C. W. Long had cut out another tumor from his neck in the early part of the same year, while he was under the influence of the inhalation of sulphuric ether and that he was totally unconscious of pain during the performance of the operation. He informed me that after the effect of the inhalation passed off, he could not believe the operation was over until Dr. Long exhibited the tumor to him. The fact of Dr. C. W. Long using sulphuric ether to prevent pain in surgical operations was public and notorious in and near the village of Jefferson, Jackson county, Georgia, in the year 1842.

(Signed) James E. Hayes, M. G. M. (Maj.-Gen. of Militia.)

Sworn to and subscribed before me this April 6, 1854.

N. H. Pendergrass, J. P.

XV

Certificate: In November, 1841, Dr. C. W. Long told me he believed an operation could be performed without the patient feeling pain, by giving him ether to inhale. In April, 1842, he told me about his experiments on James M. Venable and that they were successful. I also saw Venable the same spring, who told me that he felt no pain in the operations.

(Signed) R. H. Goodman.

Witness:

M. McKinley Cobb, (Mrs. Howell Cobb).

Sallie Pope Stanley.

LETTER OF DR. LONG TO R. H. GOODMAN AND MR. GOODMAN'S ANSWER

Jefferson, Ga., February 7, 1842.

Dear Bob: I am under the necessity of troubling you a little. I am entirely out of ether, and I wish some tomorrow night, if it is possible to receive it by that time.

We have some girls in Jefferson who are anxious to see it taken.

Your friend,

(Signed) C. W. Long.

The above letter was written to me by Dr. C. W. Long in which he ordered the ether with which he performed the first surgical operation on a patient under the influence of that drug. A tumor was removed from the neck of James M. Venable, without giving him any pain. It was a complete success.

(Signed) R. H. Goodman.

Certificate: I certify that on the first of January, 1842, I resided in Jefferson, Jackson county, and about that time myself with several other young men were in the habit of meeting in the office of Dr. C. W. Long and other rooms in the village and inhaling ether which he administered to us. We took it for its exhilarating effects. On the 20th of January of the same year I removed to Athens in the same State where I introduced the inhalation of ether. I, and several of my young associates frequently assembled ourselves and took it for the excitement it produced. After that I know it became very common to inhale ether in Athens and that it was taken by a great many persons in the place and was frequently taken on the college campus and in the streets.

(Signed) R. H. Goodman.

Of the firm of Matthews Goodman & Co., of Athens, Ga.
August 4, 1849.

XVI

Georgia, Clarke County.

I, Edmund S. Rawls of Rome, Floyd county, Georgia, on oath depose and say that I resided with my father in Jackson county, Georgia, in the year 1842, and in the village of Jefferson was a pupil of Wm. H. Thurmond who had charge of the Academy. During that year I frequently inhaled ether for its exhilarating effects in the office of Dr. C. W. Long, and at other places in the village of Jefferson, and was well acquainted with the smell of ether and the effects of its inhalation. On one occasion during this year I was present with James M. Venahle in the office of Dr. C. W. Long and witnessed Dr. C. W. Long cut out a tumor from the side of the neck of James M. Venahle while said Venahle was under the influence of the vapor of sulphuric ether inhaled from a towel, and without his exhibiting the least symptoms of suffering pain from the operation. After the operation J. M. Venahle was so unconscious of the operation being performed that he would not believe the tumor was removed until it was shown to him by Dr. Long.

This operation, I am positive, was performed during the year 1842 while I was a pupil of Wm. H. Thurmond, as it was the only year he had charge of the Academy.

(Signed) E. L. Rawls, M. D.

Sworn to and subscribed before me, 2d November, 1853.

E. L. Newton, J. I. C.

XVII

State of South Carolina, Anderson District.

I, Phillip A. Wilhite, do state that in the month of October, 1844, I entered the office of Dr. C. W. Long of Jefferson, Jackson county, Georgia, where I continued some eighteen months. That very shortly after I entered his office and not later than the beginning of the year 1845, I heard the said C. W. Long speak of having used sulphuric ether by inhalation to prevent pain in surgical operations, he referring to a period of time before I entered his office at which it had been used. Among other instances of which mention was made he had used sulphuric ether by inhalation by cutting off tumors from the neck of James M. Venable, of which I heard Dr. Long and many others who had witnessed the operation frequently speak, and my impression is that I heard Venahle himself speak of the operation as having been performed without feeling any pain. My recollection is distinct that the use of sulphuric ether by inhalation in such cases he said C. W. Long about the latter part of 1844 and early in 1845 was public and notorious about the town of Jefferson, from the mention so frequently made of it in my presence.

(Signed) P. A. Wilhite, M. D.

Sworn to and subscribed before me 4th February, 1854.

R. S. Vandiver, N. P.

XVIII

(Note: Dr. Chas. T. Jackson of Boston, Mass., suggested the use of ether as an anaesthetic to Dr. W. T. G. Morton, a dentist of the same place in 1846, and in that year Dr. Morton so used the same. Jackson and Morton, after having made a trial of ether at the Massachusetts General Hospital applied for a patent on same, disguised, and under the name of "letheon". When Morton applied to congress for a donation for the discovery of ether, his claim was disputed by Dr. C. T. Jackson and also by Wells, and it was then that Senator Dawson of Georgia put the claim of Dr. Long in the bill before congress as the real prior discoverer. Dr. Chas. T. Jackson, without whose suggestion Morton would never have known of ether as an anaesthetic, conceded the priority of the discovery to Dr. Crawford W. Long.)

The following letter and magazine extract in proof of the above:

C. H. Andrews

Louis H. Andrews

C. H. ANDREWS & SON
Insurance Agents

Milledgeville, Ga., March 22, 1900.

Dr. Edwin Newton, Atlanta, Ga.—

Dear Friend: Recently meeting you after many years of separation and recalling incidents of our boyhood days in Athens, Ga., gave me very great pleasure.

The naming of many loved ones who have preceded us to the "beautiful land" saddened our unexpected meeting. But the recital of some kind act of theirs to us, wayward boys, quickly cleared our husky voices and brightened our tear-dimmed eyes again. There is a magical Isle in the River of Time and you and I call it: The Long Ago.

You request of me a description of the old drug store in Athens, Ga., in which I served as an apprentice from August, 1849, until December, 1856, and of an interview there between Dr. Crawford W. Long and Dr. Charles T. Jackson of Boston, Mass. These are among the treasures of mine on the "Magical Isle of Long Ago," and between that time and now the River of Time has run rapidly toward the dark, deep sea that has no bounds. But, I serve you as I can.

When I first knew of and entered upon service in that old store, it was a one-story frame, shingle roof store, on Broad street, between frame shoe store and Bloomfield's brick clothing store, and opposite the midway entrance to the university campus. Today this is all changed and a two-story brick building stands where the old drug store then was.

In 1849, and for years previously, Drs. Reese and Ware owned and occupied this drug store. In 1851 Dr. Reese retired and Dr. E. R. Ware became sole proprietor. In 1852 C. W. and H. R. J. Long bought of Dr. Ware the drug store and amid the several changes I continued the principal clerk and book-keeper in that old drug store. The Drs. Long were brothers and both were practicing physicians.

On leaving Athens in 1856 I began the drug business in Madison county, Georgia, with my only brother, which we continued until 1880.

In recalling that old Athens drug store where the years of my boyhood and my early manhood were spent, my heart warms with gratitude and love toward my employers who were so good to me. Especially for Dr. Crawford W. Long do I cherish a reverence and love that will last to the end of my life. As my employer and instructor he was patient, gentle and painstaking in fitting me for the struggle and business of life, and I was attentive, anxious to please and ambitious to learn.

The world, the entire world to the latest generation, should be grateful for his ever having lived, and especially should our General Government honor and revere his name and materially repay his loved ones for his genius, skill and perseverance in the first discovery (in 1842), "that the inhaling of sulphuric ether will annihilate pain in surgical operations". The results of the War Between the States (1861-1865), left the Southern people in poverty. Dr. C. W. Long and his family were no exceptions. The children and the children's children of this wise physician, this benefactor to the entire world, should become their beneficiaries as a reward for this wonderful discovery of their father, whose wise brain and skilled hand is now pulseless in an eternal sleep. That Crawford W. Long was the first to discover anaesthesia there can be no doubt.

On March 8, 1854, early in the day, a stranger entered the old drug store in Athens (herein referred to), and inquired for Dr. C. W. Long. I told him Dr. Long was absent, but I thought he would be in in a short time and invited him to a seat at the fireside. In a few moments Dr. Long came in, and I said: "This gentleman has called to see you." The stranger presented his card introducing himself as Dr. Charles T. Jackson of Boston, Mass.

Dr. Jackson was a "spare made" man, angular, of five feet ten inches

height, of swarthy complexion, with dark hair and eyes, and apparently forty years of age. The large portrait at the capital of Georgia is a "speaking likeness" of Dr. Long. He was then thirty-nine years of age.

After a few moments conversation, Dr. Jackson said to Dr. Long that he had called to see him for the purpose of comparing notes as to the "first discovery of the anaesthetic effects of sulphuric ether," they both and others claiming the discovery. Dr. Long pleasantly assented to confer with him upon the subject and I was called upon to witness their interview and to examine with them the documentary evidence each would produce.

Dr. Jackson stated that his profession was that of an analytical chemist in Boston, Mass., "that a few doors from his office in Boston was the office of Dr. W. T. G. Morton, a dentist. That on September 30, 1846, Dr. Morton came to his office and said, 'Dr. Jackson, I have to perform an operation on a patient who is suffering very much and is in a very nervous condition: can you suggest or give me something that will allay pain and quiet excessive nervousness?'" That he took a small phial of sulphuric ether, adding some essential oils to disguise its odor and cautioned him in its use and fully directed him how the patient should inhale it. That the effect as an anaesthetic was satisfactory and after that Dr. Morton frequently called on him for aid in that way and persevered in his efforts to learn what the article was. Finally he and Dr. Morton made a contract respecting the use of the anaesthetic and applied for a patent under the name of "letheon," and in 1854 also applied to Congress for a large sum of money for the discovery of the anaesthetic effects of ether. And that he, Jackson, and Dr. Horace Wells, a dentist of the State of Connecticut applied to the U. S. Congress, also, for this great reward as they, each, was the true and first discoverer in this matter, Wells having used nitrous oxide as an anaesthetic on December 11, 1844. That while a controversy was in progress before Congress between Jackson and Morton and Wells, it became known that Dr. Crawford W. Long of Athens, Ga., had used ether in 1842, and that now, he, Jackson, was there to compare notes and examine evidence as to the first discovery of ether as an anaesthetic.

Dr. Crawford W. Long then said, "that his attention was first called to the condition by the action of certain persons who were under the influence of nitrous oxide, or 'laughing gas'." That in those days at social gatherings of young people it was customary to inhale nitrous oxide for the amusement afforded by their curious conduct. That he was a practicing physician in Jefferson, Ga., in those days, and he noticed that those under the influence of this gas were unconscious of their surroundings and insensible to pain. They did not mind pinching their arms, nor did they feel pain from sticking of pins in their flesh. Experiments in his office with sulphuric ether, his students and others inhaling it instead of "laughing gas" made him believe that surgical operations could be performed upon persons under the influence of the ether by inhalation and without pain to the patient. On one occasion prior to 1842 in Jefferson, Ga., those in management of a social gathering for young people had failed to provide "laughing gas". The students then with him prevailed upon Dr. Long to attend and administer sulphuric ether by inhalation. That he did so and the results were satisfactory and the amusement as great as with "laughing gas". He said that he waited for an opportunity to use ether in a surgical operation. The opportunity came and on March 30, 1842, he administered sulphuric ether by inhalation to James M. Venable and extirpated a tumor from his neck without pain to the patient. Other operations, he said, followed, and one and all in the presence of students, physicians, and other citizens. That during this time he conferred with physicians in all that section of Georgia, giving in detail his successful experiments and operations with sulphuric ether as an anaesthetic.

Drs. Jackson and Long submitted to my inspection much documentary evidence in the way of memoranda, book entries, certificates and affida-

vits made under oath by patients and lookers on. In their protracted conference they were frank, but slow, cautious and exact. It was a weary day's work, and vividly before me now, though so many years intervene.

Dr. Jackson went from Athens into the gold mining region of Georgia. As he had to go through Jefferson, Ga., Dr. Long gave him names of physicians and citizens who saw and knew of his first and frequent use of ether as an anaesthetic and who would personally give him their evidence.

On Dr. Jackson's return to Athens after some ten days he called upon Dr. Long again, and in my presence. Throughout their conferences during the two days that Dr. Jackson was in Athens to whatever proposition he made to Dr. Long for sharing the honor and benefits of the discovery Dr. Long replied: "My claim to the discovery of the use of sulphuric ether as an anaesthetic rests upon the fact of my use of it on March 30, 1842, of which I have indisputable evidence under oath and from reputable citizens."

On taking leave of Dr. Long late in the afternoon of the second day in March, 1854, Dr. Jackson said to Dr. Long: "Well, doctor, you have the advantage of us other claimants to the first discovery and use of sulphuric ether as an anaesthetic, but we have the advantage of having first published it to the world." It is a thing of record, published by Dr. Charles T. Jackson in the Boston Medical and Surgical Journal on April 11, 1861, that he, Jackson, visited Dr. Long at Athens, Ga., on March 8, 1854, and that he there and then examined the evidence as to claims of Dr. Long as to the first use of sulphuric ether as an anaesthetic on March 30, 1842, in extirpating a tumor from the neck of James Venable, without pain to the patient. "That he used the anaesthetic in taking off a tumor from the head of Mary Vinson of Jackson Co., Ga., on September 9, 1843." "That on the 8th of January, 1845, he used ether as an anaesthetic with a negro boy owned by Ralph Bailey of Jackson Co., Ga., and amputated a finger without pain to the patient," and that all these occurred prior to the suggestion on September 30, 1846, of the use of sulphuric ether to allay pain, and the use of it on said September 30th at Dr. C. T. Jackson's suggestion, by Dr. W. T. G. Morton, both of Boston, Mass.

From an operation performed in the General Hospital of Boston, Mass., Dr. Bigelow, learning what "letheon" was, published an account of its use in the operation, in the Medical Examiner of Boston, in December of 1846.

Dr. Long published in the Southern Medical and Surgical Journal in 1849 an account of his discovery and use of ether as an anaesthetic in 1842.

Wishing you much happiness and hoping to see you again in this life, I am always, your friend,

(Signed) C. H. Andrews.

Georgia, Baldwin county.

Personally came before me, this 15th day of November, 1900, C. H. Andrews, who being duly sworn says the statements made in the preceding letter are absolutely true.

(Signed) C. H. Andrews.

Sworn to and subscribed before me.

E. P. Gibson, J. P.

DR. CHARLES T. JACKSON'S ACCOUNT OF HIS VISIT TO DR. CRAWFORD W. LONG

(From the Boston Medical and Surgical Journal, Boston, Thursday, April 11, 1861.)

The following communication is of special interest, coming as it does from one of the claimants to the exclusive credit of the introduction of sulphuric ether to the world as an anaesthetic. It does not, in our opinion invalidate in the least, the claims of either of these gentlemen, but it is of considerable importance as a matter of history.—(Editorial Comment.)

XIX

FIRST PRACTICAL USE OF ETHER IN SURGICAL OPERATIONS

Mr. Editor: At the request of the Hon. Mr. Dawson, U. S. Senator from Georgia, on March 8, 1854, I called upon Dr. C. W. Long of Athens, Ga., while on my way to the Dahlonega Gold Mines, and examined Dr. Long's evidence on which his claims to the first practical use of ether in surgical operations were founded and wrote, as requested by Mr. Dawson, who was then in the United States Senate, all I learned on the subject.

From the documents shown me by Dr. Long it appeared that he used sulphuric ether as an anaesthetic agent:

(1) On March 30, 1842, when he excised a tumor from the neck of James Venable, a boy in Jefferson, Jackson Co., Ga., now dead.

(2) July 3, 1842, in the amputation of a toe of a negro boy belonging to Mrs. Hemphill of Jackson Co., Ga.

(3) September 9, 1843, in the amputation of a tumor from the head of Mary Vinson of Jefferson, Ga.

(4) January 8, 1845, in the amputation of a finger of a negro boy belonging to Ralph Bailey of Jackson Co., Ga.

Copies and depositions proving these operations with ether were all shown me by Dr. Long, who stated to me that his account book, with the original entries and charges, was in the hands of his attorney at Jefferson, his former residence, for the purpose of having his dues collected, and that he would show me the book when I visited Athens at a future day. He also referred me to physicians in Jefferson who knew of the operations at the time. I then called on Professors Joseph and John Le Conte, then of the University of Georgia at Athens, and inquired if they knew Dr. Long and what his character was for truth and veracity. They both assured me that they knew him well and that no one who knew him would doubt his word and that he was an honorable man in all respects.

Subsequently on revisiting Athens Dr. Long showed me his folio Journal, or account book, in which stand the following entries:

JAMES VENABLE

March 30, 1842—Ether and excising tumor.....	\$2.00
May 13, 1842—Sulphuric ether.....	.25
June 6, 1842—Excising tumor.....	2.00

On the upper half of the same page are several charges for ether sold to the teacher of the Jefferson Academy, which Dr. Long told me was used by the teacher in exhibiting its exhilarating effects, and he said the boys used it for the same purpose in the Academy. I observed that all these records bore the appearance of old and original entries in the book. Of that I have no doubt. The only question is, was the ether thus charged to Mr. Venable employed by inhalation for the purpose of preventing pain and was it actually so used in the surgical operation charged at the time?

The proofs of this must be in the statement of Dr. Long supported by the affidavit of the parties on whom the operations were performed or who witnessed them. These documents as above stated I have seen in the hands of Dr. Long, or rather copies of them, for the originals were sent to Dr. Paul F. Eve of Augusta, Ga., and were lost by him, so they did not appear in the Southern Medical Journal then published by that gentleman.

On asking Dr. Long why he did not write to me or make known what he had done, he said when he saw my dates he perceived I had made the discovery before him and he did not suppose anything done after that would be considered of much importance, and that he was awakened to the importance of asserting his claims to the first surgical use of ether in operations by learning that such claims were set up by others, and consequently wrote to the Georgia delegation in Congress stating the facts which Senator Dawson requested me to inquire into.

I have waited expecting Dr. Long to publish his statements and evidences in full, and have, therefore, not published what I learned from him. He is a very modest and retiring man, and not disposed to bring his claims before any but a medical or scientific tribunal. This he has done in the State Medical Society of Georgia as appears by their records. (See Southern Medical and Surgical Journal, Augusta, Ga.)

Had he written to me in season I would have presented his claims to the Academy of Science in France, but he allowed his case to go by default, and the Academy knew no more of ether in surgical operations than I did.

(Signed) Charles T. Jackson, M. D.

Boston, April 3, 1861.

CONGRESSIONAL ACTION

In the 33d Congress, a Bill was introduced in the Senate, No. 210, entitled an Act to Recompenze the Discoverer of Practical Anaesthesia.

The names of Morton, Jackson and Wells were in the Bill. Senator Dawson of Georgia had the Bill amended so as to include the name of Crawford W. Long. This was done at the suggestion of friends of Dr. Long.

The Bill was referred to a special committee. See Congressional Globe, I, 33, Part 2, p. 943.

The Bill was sent to the House of Representatives, was taken up, and laid on the table. Congressional Globe, April 2, 1854.

A Remarkable Admission

In his admirable booklet on, "Long, the Discoverer of Anaesthesia," while Assistant Resident Surgeon, Johns Hopkins Hospital, Baltimore, Dr. Hugh H. Young, said:

"The list of operations as given by Dr. Jackson is not complete, as he has omitted the second operation on Venable, and a number of the later operations. In a letter to Dr. Sims, which I have, Dr. Long denies absolutely that he ever acknowledged that Dr. Jackson was the prior discoverer. He had been led to infer that ether had anaesthetic powers several months before he got a chance to verify it, and before Jackson claims to have made similar inferences, but he dated his claims of discovery from the time of his first practical demonstrations. Before that it was a mere supposition, as was Jackson's also.

"But barring these inaccuracies, Dr. Jackson's paper, coming as it does from one who so zealously coveted the title of discoverer, is a remarkable admission.

"The interview between Long and Jackson must have been most amicable, and Long evidently felt the greatest respect for Jackson, as shown by the following letter:

"Athens, Ga., November 15, 1854.

"Dr. C. T. Jackson—

"Dear Sir: I design to prepare an article with the proofs of the priority of my claim of the discovery of the anaesthetic powers of ether and of its applicability to surgical operations. I design having this published in pamphlet form for distribution among the members of the medical profession, and I expect to present such proof with the article as will satisfy all that I am entitled to all I claim.

"Ours are rival claims, and permit me, sir, to say that although our claims are conflicting, I would not knowingly say anything in the article which would be displeasing to you. I entertain high respect for you as a gentleman and man of science and feel honored by your acquaintance.

"Still it becomes each one of us to use all honorable means to advance

his own claims, and I know you will not blame me for attending to this matter, which so much concerns my reputation.

"Shall it meet with your approbation, I may refer to your admissions to Hon. W. C. Dawson and myself, of the belief of the correctness of my claims. I will, however, make no allusion to your letter to Mr. Dawson or to the conversation held with myself unless it meets with your sanction.

"Your obedient servant,
"C. W. Long."

BOSTON'S ETHER MONUMENT TO THE UNNAMED DISCOVERER OF ANAESTHESIA

Since this brochure was prepared for publication, Prof. Chas M. Ford of Cambridge, Mass., well known throughout the country both in professional and business circles as a gentleman of distinguished mental and literary attainments, has read before the Scientific Section of the American Pharmaceutical Association, held in New York City on August 25, 1919, an able address on the subject of "Boston's Monument to the Unnamed Discoverer of Anaesthesia".

In this address—a most scholarly presentation of the history of the discovery of anaesthesia, and a fair and judicial statement of all the facts necessary to show a proper view of the merits of all conflicting claims of priority in the premises—he clearly exhibits the overwhelming proof that this honor is due to Crawford Williamson Long.

The limits of this publication permit only the following extracts from Dr. Ford's able and interesting production:

"The monument (on Boston Commons) need be but briefly described here, as it is so completely shown in the photographs and slides that are placed before us. It was dedicated in 1868; the donor being Thomas Lee, a public spirited citizen of Boston. It is a granite and red marble structure rising thirty feet in height from a square basin into which from the four sides of a cubical base spouting lions gush forth streams of water. Sculptured water lilies and other aquatics adorn this base. In each of the four canopied sides, is built a marble slab bearing an appropriate inscription and surmounting an allegorical bas relief. The principal inscription the monument bears is as follows:

"To commemorate the discovery, that the inhalation of
ether causes insensibility to pain, first proved to the world
at the Massachusetts General Hospital, in Boston, A. D. 1846."

The conclusions of Dr. Ford after an exhaustive research into the history of all the efforts to find a successful and practical anaesthetic, may be shown, by the following extracts:

"Prior to March, 1842, there is no evidence that any surgical operation had ever been performed under a general anaesthetic; that is, by means of an agent producing paralysis of the sensory nerves, as well as the nerves of motion, notwithstanding the fact that sulphuric ether was known to chemists and pathologists for two centuries. But the world at large was not informed of the properties of ether as a general anaesthetic until after a demonstration in the Massachusetts General Hospital at Boston, October 16, 1846.

"Rival claimants to the honor of the discovery, with sordid zeal, were instrumental in heralding to humanity everywhere, the discovery of this greatest blessing to mankind, medical or otherwise.

"How proud we should be that this great blessing was conferred by an American, in America. How natural, when the State of Georgia is called upon to name its two most distinguished sons, to be immortalized in the Hall of Fame at Washington, she should have given one of these places to Crawford Williamson Long as the author of painless surgery. Harvey, the discoverer of circulation of the blood, Jenner in saving the world

from the scourge of smallpox, are dwarfed in the presence of this modest, dignified physician-pharmacist, who, in the little hamlet of Jefferson, Georgia, performed a surgical operation with general anaesthesia produced by ether. And the greatest act in the career of the brilliant Dr. Charles T. Jackson, whom the scientific world would have loved to honor as the first to make use of ether as a general anaesthetic, was in 1861, when, after a painstaking investigation he placed the crown of original discoverer upon the brow of Crawford Williamson Long.

"Knowing that Dr. Joseph Jacobs of Atlanta, Ga., an honored member of this association, had in his youth been apprenticed in the pharmacy of Dr. Long and throughout the life of the latter continued on terms of closest friendship, he was appealed to for particulars in the career of this great man. And, through the three daughters of Dr. Long still living in Athens, Ga., this section is furnished with an authentic biographical sketch. Ether being a leading article of manufacture of the firm with which I have the honor to be associated, makes its history of special interest, and it was with no little emotion, when business duties carried me thither, to find myself in the home town of one of the world's greatest benefactors, and to be permitted to look upon the instruments used by Dr. Long, and among which were those first used in painless surgery."

Acknowledgment

It would be ungrateful were I to conclude this paper without proper acknowledgment of the splendid service rendered by my friend, Promis H. Bell of DeKalb County, in connection with its preparation. He made close and careful study of the valuable collections of papers and documents given me by Mrs. Florence Long Bartow, as well as of other data connected with Dr. Long's famous discovery. Studious, painstaking and untiring, he lent material assistance in the correct assembling of this data, a service which is deeply appreciated and which shall never be forgotten.



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